

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

Application of Sierra Pacific Power Company  
d/b/a NV Energy for authority to adjust its  
annual revenue requirement for general rates  
charged to all classes of electric customers and  
for relief properly related thereto.

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Docket No. 16-06006

Application of Sierra Pacific Power Company  
d/b/a NV Energy for authority to adjust its  
annual revenue requirement for general rates  
charged to all classes of gas customers and for  
relief properly related thereto.

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Docket No. 16-06007

Application of Sierra Pacific Power Company  
d/b/a NV Energy for approval of new and revised  
depreciation and amortization rates for its  
electric operations.

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Docket No. 16-06008

Application of Sierra Pacific Power Company  
d/b/a NV energy for approval of new and revised  
depreciation and amortization rates for its gas  
operations.

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Docket No. 16-06009

DIRECT TESTIMONY AND EXHIBITS OF RICK GILLIAM

ON BEHALF OF VOTE SOLAR

OCTOBER 7, 2016

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**BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA**

Direct Testimony of Rick Gilliam

On Behalf of Vote Solar

Docket Nos. 16-06006, et al.

**I. Introduction**

**Q1. Please state your name and business address.**

A1. My name is Rick Gilliam. My business address is 590 Redstone Drive, Suite 100, Broomfield, Colorado.

**Q2. On whose behalf are you submitting this direct testimony?**

A2. I am submitting this testimony on behalf of Vote Solar.

**Q3. What is Vote Solar?**

A3. Vote Solar is a non-profit grassroots organization working to foster economic opportunity, promote energy independence, and fight climate change by making solar a mainstream energy resource across the United States. Since 2002, Vote Solar has engaged in state, local, and federal advocacy campaigns to remove regulatory barriers and implement key policies needed to bring solar to scale. Vote Solar has approximately 60,000 members nationally and 500 in Nevada, including at least 80 within Sierra Pacific Power Company's ("SPPC" or "the Company") service territory.

**Q4. By whom are you employed and in what capacity?**

A4. I serve as the Program Director of Distributed Generation ("DG") Regulatory Policy for Vote Solar. I oversee policy initiatives, development, and implementation related to distributed solar generation. I also review regulatory filings, perform technical analyses, and testify in commission proceedings around the country relating to distributed solar generation.

1 **Q5. Please describe your educational background.**

2 A5. I have a Masters Degree in Environmental Policy and Management from the  
3 University of Denver, Denver, Colorado. I also have a Bachelor of Science Degree in  
4 Electrical Engineering from Rensselaer Polytechnic Institute in Troy, New York.

5 **Q6. Please describe your experience in utility regulatory matters.**

6 A6. Prior to joining Vote Solar in January of 2012, my regulatory experience included  
7 five years in the Government Affairs group at Sun Edison, one of the world's largest  
8 renewable resource developers, as a manager, director, and eventually vice president;  
9 twelve years with Western Resource Advocates (formerly known as the Land and  
10 Water Fund of the Rockies) as Senior Policy Advisor; and twelve years in the Public  
11 Service Company of Colorado rate division as Director of Revenue Requirements.  
12 Prior to that, I spent six years with the Federal Energy Regulatory Commission  
13 ("FERC") as a technical witness. All told, I have over thirty-five years of experience  
14 in utility regulatory matters, including experience in reviewing legislation and  
15 testifying before legislative committees in a number of states on renewable energy,  
16 solar energy, and net metering, among other issues. A summary of my background is  
17 included as Exhibit RG-1.

18 **Q7. Have you previously testified before the Nevada Public Utilities Commission**  
19 **("the Commission")?**

20 A7. Yes, I have.

21 **Q8. Before what other utility regulatory commissions have you testified?**

22 A8. I have testified in proceedings before the Arizona Corporation Commission, Colorado  
23 Public Utilities Commission, Idaho Public Utilities Commission, New Mexico Public

1 Regulation Commission, Utah Public Service Commission, Wisconsin Public Service  
2 Commission, Wyoming Public Service Commission, and the FERC.

3 **II. Purpose of Testimony and Summary**

4 **Q9. What is the purpose of your testimony in this proceeding?**

5 A9. The purpose of my testimony is to address some of the elements of the SPPC  
6 submittal that raises concerns for Vote Solar related to the deployment of distributed  
7 solar generation.

8 **Q10. Please summarize your testimony.**

9 A10. SPPC is seeking an adjustment to the NEM rates approved in its compliance filing of  
10 February 23, 2016, purportedly due to the Company's concurrent proposal to change  
11 base rates for non-NEM customers. This amounts to bootstrapping monthly fixed  
12 charge increases for NEM customers beyond what was contemplated in the  
13 Commission Order. This proposal should be rejected.

14 Second, the Company's proposal to allocate costs to NEM customers based on  
15 "adjusted" total load (for transmission) and the greater of total load or generation (for  
16 distribution demand) is not cost-based, inappropriately assumes all NEM generation  
17 is offline simultaneously at peak, and creates a misalignment between the derivation  
18 of marginal costs and assignment of those costs. The delivered load shape should be  
19 used to correct these problems.

20 Third, the price proposed by the Company to purchase NEM customers' excess  
21 energy generation is not correct. I recommend changes to ensure that the actual value  
22 of NEM generation is compensated.

Fourth, I have also calculated the actual dollar impact of the claimed “NEM subsidy” based upon the Company’s own estimates. While I do not agree with the Company’s estimate of a “NEM subsidy,” I find the impact of SPPC’s estimate to be about 11¢/month on the average residential D-1 customer. In context—even if one accepts the Company’s calculation of a “subsidy”—the amount of that subsidy is insignificant. Other subsidies are similar, or much higher, but the Company does not propose to call those subsidies out as it does with NEM. Lastly, I note a concern that, based on the Company’s description in discovery responses, the reconciliation of customer inflow and outflow of electricity in an hour is not properly netted as required by the NEM docket order.

### **III. SPPC Proposal to Create New NEM Rate Phase-in Step**

**Q11. Please describe the proposal by SPPC to change the NEM rates.**

A11. SPPC proposes to change NEM rates to take into account its proposed new rates for the three small customer classes, from which NEM customers were segregated in Docket No. 15-07042. In effect, based on the proposal to tilt rates for non-NEM customers, the Company proposes to add a new step to the NEM rate phase-in approved by the Commission in its February 17, 2016 Modified Final Order.

The proposal is based primarily on a recalculation of the first step in the twelve-year transition of NEM rates that substitutes SPPC’s proposed non-NEM rates, including a new basic service charge, for those reflected in the present non-NEM rates. This calculation, including the substitution, results in an unjustified increase in NEM rates.

**Q12. Why do you say this change is unjustified?**

A12. The change is unjustified for several reasons. Most importantly, the Commission in its Modified Final Order of February 17, 2016 established the ladder approach to the implementation of the new NEM rates phased in through five steps or “rungs:”

The first rung of the ladder will be implemented on January 1, 2016, and continue through December 31, 2018. Beginning on January 1, 2019, the second rung will be implemented and continue through December 31, 2021. Beginning on January 1, 2022, the third rung will be implemented and continue through December 31, 2024. Beginning on January 1, 2025, the fourth rung will be implemented and continue through December 31, 2027. The fifth and final rung will be implemented on January 1, 2028, when the transition to cost-based rates will have been completed. As a result, incremental changes from the current rates will be made consistent with the general rate case cycles of both utilities. Gradualism will mitigate rate shock by providing a glide path to cost-based rates that are not subsidized by non-NEM ratepayers.<sup>1</sup>

This paragraph makes clear that the intent is for five rungs, each to be in place for a period of three calendar years. The Commission did not contemplate more step changes than the five, as the Company proposes here.<sup>2</sup>

**Q13. Doesn’t the Modified Order contemplate changes “consistent with general rate case cycles?”**

A13. Yes, it does, but it does not propose rate changes during each rate case. This is explained in paragraph 359 of the Modified Order: “A step change every three years is also consistent with the time period between rate changes for electric utilities through general rate cases. All ratepayers should expect this.”

Thus it is not the rate case, itself, in which the Commission suggested *making* the step

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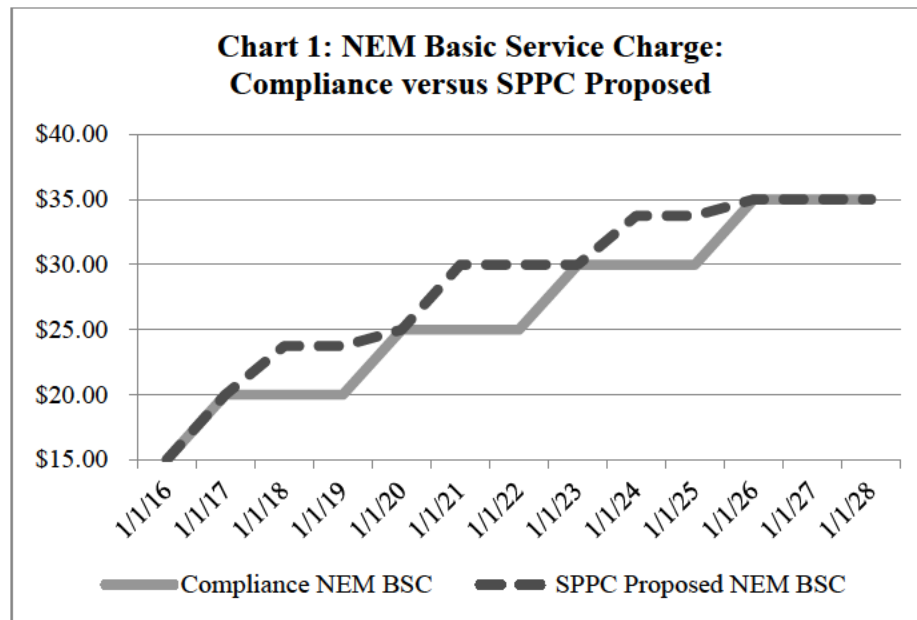
<sup>1</sup> Modified Final Order at ¶ 340, (Feb. 17, 2016) (Nos. 15-07041, -07042).

<sup>2</sup> Modified Final Order at ¶ 358, (Feb. 17, 2016) (Nos. 15-07041, -07042) (“All NEM customers will transition to cost-based rates over the next 12 years. During that period there will be a total of five step changes to NEM2 rates: (1) January 1, 2016, (2) January 1, 2019, (3) January 1, 2022, (4) January 1, 2025, and (5) January 1, 2028.”).



changes, but that the time between changes would be the same three years as used for the rate case cycle. However, the Company's proposal in this case would result in a second change within the first year of the first rung.

Additionally, the newly proposed rates for D-1, DM-1, and GS-1 customer classes have not been approved by the Commission and are speculative at best. Changing the starting point, i.e. the current rates for the non-NEM classes, would effectively accelerate the phase-in and increase rates for NEM customers more, and faster, than the Commission ordered in the NEM docket earlier this year. Chart 1 graphically depicts the effect of SPPC's proposal on the Basic Service Charge ("BSC").



**Q14. What do you recommend the Commission do regarding this issue?**

**A14.** I recommend the Commission reject SPPC's proposed changes to the NEM rates based on the proposal to increase non-NEM rates.

1           **IV.     Calculating Cost-Based Rates for Serving NEM Customers**

2   **Q15.     How does the SPPC assign costs to customer classes?**

3   A15.     The Company assigns costs from the marginal cost of service study for each function  
4           (i.e. production, transmission, and distribution) based on class load shapes, described  
5           in detail in the testimony of Mr. Pollard. The class load shapes are comprised of the  
6           hourly loads of the class as a whole. The higher the load of the class in a given hour,  
7           the greater share of costs assigned to that class for that hour. However, SPPC used  
8           different load shapes for each function for the NEM customer classes: delivered load  
9           for generation, “adjusted” total load for transmission, and the greater of total load or  
10          excess energy exports for distribution. The load shapes for transmission and  
11          distribution are also different than the load shapes that the Company used to assign  
12          the same costs to other classes.

13   **Q16.     Did the Commission address NEM load shapes in its Modified Final Order of**  
14           **February 17, 2016?**

15   A16.     Yes. In that proceeding, the Company similarly proposed using load shapes based on  
16           the greater of NEM customers’ “total load” (i.e., what the load would theoretically be  
17           each hour if all NEM generation was inoperable all of the time) or energy exports to  
18           allocate distribution costs and an “adjusted total load” shape to allocate marginal  
19           transmission costs or the use of the total load shape. Parties introduced extensive  
20           testimony disputing the reasonableness of using these load shapes to allocate costs to  
21           NEM customers. The Commission addressed the load shapes of NEM customer  
22           classes in a single sentence:

23                   While parties raised several issues pertaining to load shapes,  
24                   transmission and distribution marginal costs, customer facilities

costs, customer costs, etc., NV Energy adequately explained the reasons for the inputs in the MCSS. Of particular note, the other parties' proposals for load shapes afford no weight to the standby service that NV Energy provides to partial-requirements NEM ratepayers, which would effectively shift the cost burden to non-NEM ratepayers—such cost shifting is not reasonable or in the public interest.<sup>3</sup>

I understand the Commission's concern to be ensuring that NEM customers are allocated the cost to the Company to provide "standby service," that is being able to provide electric service up to the NEM classes' coincident use, at any time. I will address the highlighted issue in my testimony here. I do not disagree with the Commission's premise; however, the facts in this docket show that "adjusted total load" for transmission and greater of total load or excess energy generation for distribution, do not represent the cost to actually provide that "standby" service.

**Q17. Can you summarize your testimony regarding the way in which the Company proposes to calculate the cost-based rates that it seeks to charge NEM customers for the electricity they purchase from the Company?**

A17. I do not agree with the Company's use of an "adjusted" total load shape to allocate marginal transmission costs or the use of the greater of total load shape or excess generation to allocate distribution costs. While I agree that NEM customers, like all customers, should pay the cost for the utility to stand ready to serve their needs, any cost of providing backup or supplemental service should be calculated based on probabilistic analysis and system-wide costing methodology. The "adjusted" load, total load, and excess energy load shapes are neither. Rather, because the frequency, timing, and resulting loads from NEM customers when their generation equipment is not producing is embedded in the delivered load shape, that load shape is the cost of

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<sup>3</sup> Modified Final Order at ¶ 84, (Feb. 17, 2016) (Nos. 15-07041, -07042) (emphasis added).

standing by (i.e. backup and supplemental service). Under the facts here, using the delivered load shape represents a cost-based rate and accurately assigns costs for providing standby (backup and supplemental) service.

**Q18. Can you further explain why the delivered load represents a cost-based allocation of standby costs to provide transmission and distribution service?**

A18. There are several reasons. First, for an integrated utility like SPPC, the generation load and transmission load are closely related. The Company uses delivered load shape to allocate generation capacity costs to NEM customers, but uses an “adjusted” total load shape to allocate transmission capacity costs to NEM customers, without providing a sufficient explanation for this different treatment for what are conceptually similar costs.

Second, the Company does not allocate transmission and distribution standby costs based on a probabilistic determination of the loads, and therefore costs, that the NEM classes are likely to put on the transmission and distribution systems when NEM systems are not operating or have diminished generation. Allocation based on a probabilistic determination of the transmission and distribution service that NEM customer classes are likely to use during relevant time periods is the common way to allocate costs to those customers based on the amount of reserves attributable to the partial use customers as a class.

**Q19. Why is the “adjusted” total load shape used to allocate transmission costs to NEM customers not probabilistic?**

A19. A probabilistic determination asks what amount of service a class is likely to require during the relevant (typically peak) periods, and therefore the amount of capacity the

1 utility is likely to need in order to provide backup service to the class. An example is  
2 the calculation done for SSR and LSR customers of Sierra Pacific. For those  
3 customers, the Company applies what it calls a “diversity factor” to the load shape  
4 derived from a class that excludes self-generating customers.<sup>4</sup> The “diversity factor”  
5 is a weighted time-of-use period ratio based on the coincident peak hour demand of  
6 all standby customers divided by their “contract” capacity, which is generally the  
7 nameplate capacity of the generation.<sup>5</sup> It is then applied to a demand cost that was  
8 calculated for customers without generation—that is, which excludes the SSR and  
9 LSR customers. This calculation generally approximates the likely amount, and thus  
10 cost to provide capacity for, the electric service that the SSR and LSR customers, as a  
11 group, are likely to require in each time-of-use period and therefore the amount and  
12 cost of providing backup service.

13 In contrast, the “adjusted” total load shape used for NEM customers uses each  
14 individual customer’s non-coincident peak delivered load and non-coincident peak  
15 total load.<sup>6</sup> The Company uses the difference in total load peak and delivered load  
16 peak—occurring at different times for each individual NEM customer—and  
17 combines them for all NEM customers, also occurring at different times and days, by  
18 time of use period. That is, the peak total load and peak delivered load for each NEM  
19 customer are not coincident, and the two non-coincident individual peaks are also not  
20 necessarily (except by random chance) coincident to peaks of any other NEM  
21 customer in the class. This calculation has no relation to the amount of service that

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<sup>4</sup> Dep. of Timothy Pollard Tr. 90:21-92:23 (attached as Ex. RG-2).

<sup>5</sup> *Id.* 92:21-93:24.

<sup>6</sup> *Id.* 97:7-15.

1 the NEM classes are likely to use and is not a probabilistic analysis relevant to  
2 determining a cost of standby service.

3 I also note that the aggregation of each individual NEM customer's non-coincident  
4 delivered and total load peaks, not coincident to any other NEM customer's peaks,  
5 does not reflect the "reduction in the maximum kW demand of the NEM customer  
6 classes" or the reduction in transmission load that NEM generation provides, which is  
7 what the Company contends the adjustment is intended to do.<sup>7</sup>

8 **Q20. What should the Commission use to assign transmission "backup" costs to NEM**  
9 **customers?**

10 A20. The Commission should use the delivered load shape to assign costs for at least two  
11 reasons. First, the probability that NEM customer classes' generation will be down,  
12 or reduced, at any given time, and therefore the service that the class is likely to  
13 require from the Company, is already embedded in the delivered load data.<sup>8</sup> In other  
14 words, because some NEM customers' generation went down, or was diminished,  
15 during the test years used to derive the delivered load shape, the probability of some  
16 NEM customers' generation going down or being diminished on a class-wide basis  
17 from hour to hour is already included in the load data. Second, the marginal costs for  
18 transmission and distribution demand are derived from regression analyses that use  
19 system-wide peak load data,<sup>9</sup> which represent the delivered loads to customers, not  
20 the total load data. There is a mismatch between the marginal cost basis and the  
21 allocation of those costs if total load, rather than delivered load, data are used.

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<sup>7</sup> *Id.* 49:9-23, 53:8-20.

<sup>8</sup> *Id.* 50:21-51:5.

<sup>9</sup> *Id.* 24:17-25; Ex. Bohrman Cert-2, Tbl. 10 at pp. 2-3, Tbl. 14.

**Q21. Why is the total load shape used to allocate distribution demand costs to NEM customers not probabilistic?**

A21. The total load shape does not relate to the service that NEM customers are likely to require as a class. Rather, it is the service that the customers would, theoretically, require if their generation did not produce any electricity. The total load shape assumes that each NEM customer's generation equipment is offline, simultaneously, during each hour of the year. There is no basis that this is a probable, or likely, scenario.

For illustrative purposes, there are three possible scenarios: the amount of on-site generation is (1) less than, (2) equal to, or (3) more than the NEM customer's consumption (or total load).

**Table RG-1: Delivered Load Compared with SPPC Method**

<i>Single hour</i>	Generation < Consumption	Generation = Consumption	Generation > Consumption	Generation >> Consumption
Total kW Load	300	300	200	200
Generation kW	200	300	300	450
kW in-flow	100	0	0	0
kW out-flow	0	0	100	250
Delivered Load	100 kW	0 kW	0 kW	0 kW
Load SPPC Proposes to Allocate Cost	300 kW	300 kW	200 kW	250 kW

It is clear that the Company's method produces an unfair result. Using the greater of total load plus or excess energy does not reflect the burden placed on the distribution system for any hour in which there is any generation. Under any of these scenarios, the highest load the utility experiences either through delivery of energy to the customer or via the customer exporting excess energy, is 100 kW. Yet under all scenarios, the customer is treated as a 200-300 kW burden on the distribution system.

1 There is also no probability analysis showing the likelihood of the NEM customer  
2 class as a whole requiring service at the full “total load” of each customer  
3 simultaneously.

4 Additionally, while I am not an attorney, using the “total load” does not appear to  
5 satisfy the requirement in 18 C.F.R. § 292.305 that rates charged to customers with  
6 solar generation should be based on system-wide costing principles and cannot “be  
7 based upon an assumption (unless supported by factual data) that forced outages or  
8 other reductions in electric output by all qualifying facilities on an electric utility’s  
9 system will occur simultaneously, or during the system peak, or both . . . .”<sup>10</sup>

10 **Q22. Should the excess energy load shape be used to assign distribution costs?**

11 A22. No. The company contends that NEM customers’ excess energy should be used to  
12 assign distribution demand costs to NEM customers during the hours when excess  
13 energy exceeds total load. According to the Company, using excess energy to  
14 allocate costs “is based on the fact that when excess generation exceeds the total load,  
15 NEM customers are placing more energy—a higher energy burden on the distribution  
16 system than they would have otherwise placed had they not installed their  
17 generation.”<sup>11</sup> This is apparently based on the incorrect assumption that the total  
18 burden—measured as the cumulative load—on the distribution system is higher when  
19 NEM customers deliver excess energy for use by other, non-NEM, customers, than if  
20 those non-NEM customers were being served with electricity generated by a central  
21 generating station.<sup>12</sup> However, as a matter of physics, excess energy flowing from a

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<sup>10</sup> 18 C.F.R. § 292.305(c)(1).

<sup>11</sup> *Id.* 63:6-10.

<sup>12</sup> *Id.* 67:13-68:9, 74:10-75:22.



1 NEM customer to a non-NEM customer displaces electricity that would have  
2 otherwise flowed to the non-NEM customer. With the possible exception of a short  
3 stretch of feeder line between the NEM generator and the consuming non-NEM  
4 customer, the loading on the distribution system is no greater when NEM generation  
5 is used to serve non-NEM load than if central plant generation is used. In fact, if  
6 anything, the loading, and therefore burden, on the distribution system is lessened by  
7 NEM generation because NEM generation is consumed by non-NEM customers on  
8 the same feeder,<sup>13</sup> which means that upstream—including the HVD system,  
9 substations, switching gears, etc.—there is less electricity flow and a lowered burden  
10 than if central plant generation was used to serve the same non-NEM load.

11 Furthermore, the NEM outflow (excess energy) is the same electricity that is counted  
12 as the non-NEM customer's inflow. Allocating costs to NEM customers' excess  
13 energy load and to the non-NEM customer's delivered load double-counts the same  
14 flow of electricity and assigns the full cost of the distribution system to each of the  
15 customers. As noted above, because the generation and consumption are in close  
16 proximity, it is likely that very little (if any) of the distribution demand system  
17 components are used for the flow from NEM to non-NEM customers; and, certainly,  
18 none of it is used twice for that single flow of electricity.

19 **Q23. Are there any other reasons that the delivered load shape should be used to**  
20 **assign distribution demand costs to the NEM classes?**

21 A23. Yes. Distribution system demand costs are calculated from a regression analysis  
22 based on maximum system peak, or distribution system peak for the HVD

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<sup>13</sup> *Id.* 66:10-68:17.

1 regression.<sup>14</sup> These demands reflect the delivered load of existing NEM customers  
2 and not total load. Using total load or excess generation load shapes to allocate costs  
3 that are based on a correlation of cost to delivered load creates a mismatch between  
4 the basis of the costs being allocated and the way they are allocated.

## 5 **V. The Rate for Excess Rooftop Solar Energy**

6 **Q24. What did the Commission say about the determination of the rate to be paid by**  
7 **SPPC to its customers with rooftop solar?**

8 A24. In its Modified Final Order in Docket Nos. 15-07041 and 15-07042, paragraph 337,  
9 the Commission described its intention:

10 The NEM ratepayers' net excess energy is set at a value that  
11 captures the variables that make up the possible value/detriment of  
12 NEM during each general rate case. The Commission will set a  
13 value during each future general rate case by using a methodology  
14 that considers both the positive and negative effects of: (1) avoided  
15 energy; (2) energy losses/line losses; (3) avoided capacity; (4)  
16 ancillary services; (5) transmission and distribution capacity; (6)  
17 avoided criteria pollutant costs; (7) avoided carbon dioxide  
18 emission cost; (8) fuel hedging; (9) utility integration and  
19 interconnection costs; (10) utility administration costs; and (11)  
20 environmental costs. These variables must be known and  
21 measurable positive and negative effects internal to the utility;  
22 these variables cannot be speculative or unquantified. For other  
23 than the avoided energy and energy losses/line losses, there is  
24 insufficient time or data in this proceeding to assign a value to the  
25 other nine variables, but other information can be vetted in future  
26 general rate cases.

27 **Q25. What is excess energy?**

28 A25. Excess energy is energy generated on-site that is not used on-site. It is this energy for  
29 which the Commission will establish a rate during each subsequent rate case,

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<sup>14</sup> Direct Test. of Jeffrey R. Bohrman ("Bohrman Direc"), Ex. 2, Tbl. 10.

1 including this case. The Commission set the excess energy rate based on its  
2 consideration of only the first two items from the Commission’s eleven-factor test.

3 **Q26. Please describe the excess energy rate the Company is proposing in this**  
4 **proceeding.**

5 A26. The Company proposes to use the long-term avoided cost (“LTAC”) “approved by  
6 the Commission in Docket No. 15-07004 as the foundation for the excess energy  
7 calculation.”<sup>15</sup> Company witness Elicegui claims that this value also accounts for  
8 avoided energy, avoided generating capacity costs, avoided CO<sub>2</sub> costs, and fuel  
9 hedging costs.<sup>16</sup>

10 The Company has not quantified any further benefits or costs of rooftop solar  
11 resources.

12 **Q27. Does the Company’s proposed methodology for setting NEM excess energy rates**  
13 **capture the Company’s avoided energy and capacity costs?**

14 A27. No. It is a start, but fails to include the energy and capacity value actually provided  
15 by NEM generation. There are three main reasons why the Company’s proposal  
16 undervalues the energy and capacity benefits of excess energy from rooftop solar and  
17 other distributed generation.

18 First, in Docket No. 15-07004, the Commission approved a stipulation<sup>17</sup> which, in  
19 part, allowed the Company to use a “capped” LTAC. Under this methodology, the  
20 Company caps the avoided cost at the price of “the next least cost bid” received in a

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<sup>15</sup> Direct Test. of Shawn M. Elicegui (“Elicegui Direct”) at 19:1-3.

<sup>16</sup> *Id.* at 19-20.

<sup>17</sup> There is no indication in that docket or through the Company’s responses to discovery in this docket seeking background about the stipulation, that any party raised the capping methodology or that the Commission’s approval of a broad raging stipulation in the docket focused on the LTAC methodology.

then-recent request for proposals. The “next least cost bid” is a theoretical proxy that does not represent the Company’s actual marginal cost of either energy or capacity. The monthly average “capped” LTAC and the actual marginal “uncapped” LTAC from pages 49-50 of Exhibit A to the Application in 15-07004 are shown below.

**FIGURE LTAC-1: UNCAPPED LONG-TERM AVOIDED COSTS**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2016	\$ 22.57	\$ 23.56	\$ 22.95	\$ 21.15	\$ 22.74	\$ 25.48	\$ 32.90	\$ 33.02	\$ 30.18	\$ 25.13	\$ 23.43	\$ 26.43
2017	\$ 27.01	\$ 27.89	\$ 26.60	\$ 23.69	\$ 26.19	\$ 28.62	\$ 37.16	\$ 36.90	\$ 34.24	\$ 29.70	\$ 27.25	\$ 28.61
2018	\$ 28.89	\$ 29.38	\$ 29.54	\$ 25.91	\$ 27.68	\$ 31.27	\$ 45.04	\$ 44.49	\$ 41.17	\$ 31.01	\$ 29.25	\$ 30.38
2019	\$ 30.01	\$ 30.05	\$ 28.86	\$ 27.69	\$ 29.39	\$ 33.00	\$ 55.86	\$ 55.65	\$ 52.86	\$ 34.70	\$ 32.41	\$ 33.31
2020	\$ 32.26	\$ 32.44	\$ 31.09	\$ 30.40	\$ 32.25	\$ 32.84	\$ 69.45	\$ 68.58	\$ 65.71	\$ 33.43	\$ 33.45	\$ 33.57
2021	\$ 36.25	\$ 35.81	\$ 31.97	\$ 31.61	\$ 31.83	\$ 35.33	\$ 82.15	\$ 81.86	\$ 78.34	\$ 35.34	\$ 36.02	\$ 37.36
2022	\$ 38.24	\$ 37.83	\$ 34.44	\$ 33.91	\$ 35.08	\$ 38.20	\$ 94.91	\$ 95.48	\$ 91.48	\$ 37.99	\$ 39.21	\$ 39.43
2023	\$ 41.59	\$ 40.29	\$ 36.41	\$ 36.11	\$ 37.41	\$ 38.39	\$ 101.60	\$ 101.94	\$ 97.34	\$ 40.25	\$ 43.05	\$ 43.40
2024	\$ 43.05	\$ 41.03	\$ 38.04	\$ 37.43	\$ 37.26	\$ 39.41	\$ 109.36	\$ 109.87	\$ 105.94	\$ 41.60	\$ 43.85	\$ 45.08
2025	\$ 45.26	\$ 42.44	\$ 41.41	\$ 39.33	\$ 39.41	\$ 41.97	\$ 111.36	\$ 111.55	\$ 106.87	\$ 43.62	\$ 45.71	\$ 47.93
2026	\$ 46.55	\$ 45.61	\$ 44.91	\$ 43.43	\$ 41.49	\$ 42.57	\$ 111.29	\$ 112.28	\$ 107.02	\$ 44.98	\$ 46.54	\$ 48.17
2027	\$ 49.70	\$ 45.69	\$ 42.66	\$ 41.14	\$ 41.60	\$ 43.72	\$ 114.06	\$ 114.29	\$ 107.57	\$ 45.98	\$ 50.42	\$ 49.29
2028	\$ 51.53	\$ 47.11	\$ 44.58	\$ 42.76	\$ 44.32	\$ 45.17	\$ 117.15	\$ 116.59	\$ 110.26	\$ 46.17	\$ 50.43	\$ 53.59
2029	\$ 54.13	\$ 48.46	\$ 46.24	\$ 44.39	\$ 44.19	\$ 44.96	\$ 119.13	\$ 121.42	\$ 115.75	\$ 50.49	\$ 52.86	\$ 54.76
2030	\$ 56.69	\$ 53.88	\$ 48.10	\$ 46.96	\$ 46.86	\$ 45.88	\$ 121.36	\$ 121.41	\$ 116.10	\$ 53.56	\$ 57.16	\$ 57.05
2031	\$ 56.11	\$ 50.61	\$ 49.31	\$ 47.83	\$ 46.58	\$ 48.26	\$ 122.64	\$ 122.94	\$ 118.62	\$ 55.22	\$ 60.50	\$ 60.39
2032	\$ 57.87	\$ 53.41	\$ 50.45	\$ 48.95	\$ 48.28	\$ 49.27	\$ 128.71	\$ 128.46	\$ 121.95	\$ 54.36	\$ 61.43	\$ 61.83
2033	\$ 57.93	\$ 53.36	\$ 50.32	\$ 49.02	\$ 48.01	\$ 50.49	\$ 128.53	\$ 129.16	\$ 122.80	\$ 54.38	\$ 60.36	\$ 62.78
2034	\$ 59.14	\$ 53.43	\$ 50.41	\$ 49.93	\$ 47.73	\$ 49.43	\$ 131.41	\$ 131.94	\$ 126.99	\$ 54.65	\$ 60.84	\$ 63.75
2035	\$ 60.05	\$ 55.89	\$ 51.68	\$ 50.26	\$ 48.85	\$ 48.88	\$ 129.73	\$ 128.99	\$ 126.83	\$ 53.67	\$ 61.87	\$ 62.56
2036	\$ 57.87	\$ 53.45	\$ 51.02	\$ 50.17	\$ 49.33	\$ 49.80	\$ 131.79	\$ 132.53	\$ 127.59	\$ 55.55	\$ 61.37	\$ 62.96
2037	\$ 58.72	\$ 54.54	\$ 52.09	\$ 50.92	\$ 49.65	\$ 50.57	\$ 134.17	\$ 133.57	\$ 129.50	\$ 56.34	\$ 61.78	\$ 63.09
2038	\$ 59.66	\$ 57.05	\$ 52.04	\$ 51.34	\$ 49.89	\$ 51.08	\$ 136.53	\$ 136.42	\$ 132.55	\$ 55.52	\$ 62.38	\$ 63.70
2039	\$ 60.74	\$ 57.19	\$ 53.16	\$ 52.73	\$ 50.75	\$ 53.10	\$ 140.85	\$ 140.06	\$ 134.46	\$ 56.59	\$ 63.97	\$ 64.77
2040	\$ 62.66	\$ 59.28	\$ 54.83	\$ 53.59	\$ 52.06	\$ 52.60	\$ 141.32	\$ 140.98	\$ 135.44	\$ 57.83	\$ 65.44	\$ 66.72
2041	\$ 64.09	\$ 58.69	\$ 55.20	\$ 55.23	\$ 52.59	\$ 53.34	\$ 142.94	\$ 143.55	\$ 138.78	\$ 59.24	\$ 66.50	\$ 68.21
2042	\$ 64.32	\$ 59.81	\$ 56.57	\$ 56.81	\$ 54.15	\$ 54.11	\$ 141.73	\$ 143.63	\$ 140.48	\$ 60.45	\$ 66.80	\$ 69.15
2043	\$ 65.30	\$ 60.96	\$ 57.81	\$ 57.82	\$ 54.67	\$ 55.97	\$ 146.06	\$ 145.30	\$ 143.51	\$ 62.43	\$ 67.48	\$ 70.26
2044	\$ 72.67	\$ 63.89	\$ 59.10	\$ 61.09	\$ 57.43	\$ 56.38	\$ 147.68	\$ 147.11	\$ 145.45	\$ 61.26	\$ 69.31	\$ 70.53

**FIGURE LTAC-2: CAPPED LONG-TERM AVOIDED COSTS**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2016	\$ 22.57	\$ 23.56	\$ 22.95	\$ 21.15	\$ 22.74	\$ 25.48	\$ 32.90	\$ 33.02	\$ 30.18	\$ 25.13	\$ 23.43	\$ 26.43
2017	\$ 27.01	\$ 27.89	\$ 26.60	\$ 23.69	\$ 26.14	\$ 28.43	\$ 35.03	\$ 34.57	\$ 33.42	\$ 29.25	\$ 27.25	\$ 28.60
2018	\$ 28.89	\$ 29.38	\$ 29.39	\$ 25.91	\$ 27.67	\$ 30.81	\$ 39.11	\$ 38.77	\$ 38.51	\$ 31.00	\$ 29.25	\$ 30.38
2019	\$ 30.01	\$ 30.05	\$ 28.86	\$ 27.69	\$ 29.39	\$ 32.17	\$ 42.05	\$ 42.10	\$ 42.69	\$ 34.35	\$ 32.41	\$ 33.31
2020	\$ 32.26	\$ 32.44	\$ 31.09	\$ 30.40	\$ 32.18	\$ 32.64	\$ 45.60	\$ 45.31	\$ 46.62	\$ 33.41	\$ 33.45	\$ 33.57
2021	\$ 36.25	\$ 35.81	\$ 31.97	\$ 31.61	\$ 31.83	\$ 34.89	\$ 49.26	\$ 49.20	\$ 50.90	\$ 35.30	\$ 35.98	\$ 37.35
2022	\$ 38.24	\$ 37.83	\$ 34.43	\$ 33.91	\$ 35.01	\$ 37.29	\$ 53.18	\$ 53.42	\$ 55.79	\$ 37.93	\$ 39.19	\$ 39.42
2023	\$ 41.54	\$ 40.29	\$ 36.41	\$ 36.11	\$ 37.21	\$ 37.84	\$ 55.38	\$ 55.57	\$ 58.08	\$ 40.24	\$ 42.85	\$ 43.33
2024	\$ 43.00	\$ 40.96	\$ 37.97	\$ 37.43	\$ 37.26	\$ 39.13	\$ 58.04	\$ 58.56	\$ 61.67	\$ 41.58	\$ 43.68	\$ 45.03
2025	\$ 45.18	\$ 42.37	\$ 41.39	\$ 39.33	\$ 39.40	\$ 41.39	\$ 59.84	\$ 60.02	\$ 63.02	\$ 43.61	\$ 45.55	\$ 47.89
2026	\$ 46.55	\$ 45.56	\$ 44.78	\$ 43.42	\$ 41.49	\$ 41.97	\$ 61.18	\$ 61.78	\$ 64.41	\$ 44.91	\$ 46.50	\$ 48.11
2027	\$ 49.60	\$ 45.69	\$ 42.65	\$ 41.14	\$ 41.59	\$ 43.00	\$ 63.22	\$ 63.18	\$ 65.35	\$ 45.95	\$ 50.05	\$ 49.25
2028	\$ 51.49	\$ 47.07	\$ 44.57	\$ 42.76	\$ 44.23	\$ 44.53	\$ 64.93	\$ 64.99	\$ 67.27	\$ 46.16	\$ 50.32	\$ 53.48
2029	\$ 54.07	\$ 48.46	\$ 46.23	\$ 44.39	\$ 44.18	\$ 44.46	\$ 67.15	\$ 68.21	\$ 71.00	\$ 50.46	\$ 52.69	\$ 54.65
2030	\$ 56.56	\$ 53.72	\$ 48.09	\$ 46.94	\$ 46.84	\$ 45.64	\$ 68.46	\$ 68.80	\$ 71.72	\$ 53.45	\$ 56.71	\$ 56.90
2031	\$ 56.05	\$ 50.61	\$ 49.29	\$ 47.83	\$ 46.58	\$ 47.98	\$ 69.86	\$ 70.30	\$ 73.90	\$ 54.99	\$ 59.85	\$ 60.13
2032	\$ 57.76	\$ 53.40	\$ 50.45	\$ 48.95	\$ 48.28	\$ 48.81	\$ 73.08	\$ 73.06	\$ 75.79	\$ 54.35	\$ 60.85	\$ 61.54
2033	\$ 57.89	\$ 53.35	\$ 50.31	\$ 49.02	\$ 48.01	\$ 49.77	\$ 73.99	\$ 74.79	\$ 77.19	\$ 54.37	\$ 60.10	\$ 62.54
2034	\$ 59.07	\$ 53.43	\$ 50.41	\$ 49.93	\$ 47.72	\$ 49.17	\$ 75.78	\$ 76.33	\$ 79.89	\$ 54.62	\$ 60.67	\$ 63.49
2035	\$ 59.81	\$ 55.89	\$ 51.68	\$ 50.26	\$ 48.85	\$ 48.87	\$ 75.79	\$ 75.96	\$ 79.86	\$ 53.66	\$ 61.66	\$ 62.39
2036	\$ 57.85	\$ 53.45	\$ 51.02	\$ 50.17	\$ 49.33	\$ 49.76	\$ 77.44	\$ 78.19	\$ 81.13	\$ 55.50	\$ 61.33	\$ 62.90
2037	\$ 58.72	\$ 54.54	\$ 52.09	\$ 50.92	\$ 49.65	\$ 50.57	\$ 79.57	\$ 79.63	\$ 82.68	\$ 56.32	\$ 61.70	\$ 63.03
2038	\$ 59.65	\$ 57.01	\$ 52.04	\$ 51.34	\$ 49.89	\$ 51.05	\$ 81.19	\$ 81.56	\$ 85.08	\$ 55.48	\$ 62.31	\$ 63.68
2039	\$ 60.74	\$ 57.19	\$ 53.16	\$ 52.73	\$ 50.75	\$ 53.05	\$ 83.71	\$ 83.85	\$ 86.84	\$ 56.58	\$ 63.97	\$ 64.76
2040	\$ 62.65	\$ 59.28	\$ 54.83	\$ 53.59	\$ 52.06	\$ 52.60	\$ 85.01	\$ 85.14	\$ 87.99	\$ 57.82	\$ 65.40	\$ 66.71
2041	\$ 63.84	\$ 58.69	\$ 55.20	\$ 55.23	\$ 52.59	\$ 53.34	\$ 86.29	\$ 86.79	\$ 90.40	\$ 59.24	\$ 66.46	\$ 68.21
2042	\$ 64.32	\$ 59.81	\$ 56.57	\$ 56.81	\$ 54.15	\$ 54.11	\$ 87.29	\$ 88.06	\$ 92.09	\$ 60.45	\$ 66.79	\$ 69.15
2043	\$ 65.30	\$ 60.96	\$ 57.81	\$ 57.82	\$ 54.67	\$ 55.97	\$ 90.07	\$ 90.00	\$ 94.40	\$ 62.43	\$ 67.48	\$ 70.26
2044	\$ 72.17	\$ 63.89	\$ 59.10	\$ 61.09	\$ 57.43	\$ 56.36	\$ 92.05	\$ 92.12	\$ 96.39	\$ 61.26	\$ 69.31	\$ 70.53

Second, the Company’s methodology does not account for the fact that rooftop solar produces energy during the times of the day and the year when energy is more valuable. Instead, the Company uses a marginal energy cost (“MEC”) that averages all hours in a month for non-peak months, and an average of MEC and capacity value for all hours of the peak months.

Third, the Company’s proposal undervalues the avoided capacity costs from distributed generation because it is based on capacity costs in 2017, which are a small fraction of the Company’s projected capacity costs over the twenty years (or greater) life of distributed solar generation equipment. The Company’s long-term resource planning assumes the presence of NEM generation and the long-term peak load reductions provided by NEM generation.

**TABLE LF-53  
SOLAR PV PEAK FACTORS**

Year	Installed Capacity (with losses)			MW at 5 pm on the Peak Day			Peak Factor at 5 pm			MW at the Peak Hour			Peak Factor - Peak Hour			Peak Hour
	Small	Large	Total	Small (1)	Large (2)	Total	Small	Large	Total	Small (1)	Large (2)	Total	Small	Large	Total	
2016	8	3	11	3	2	5	0.38	0.67	0.45	3	2	5	0.38	0.67	0.45	17
2017	12	18	30	5	9	14	0.42	0.50	0.47	5	9	14	0.42	0.50	0.47	17
2018	14	24	38	6	12	18	0.43	0.50	0.47	6	12	18	0.43	0.50	0.47	17
2019	16	29	45	6	15	21	0.38	0.52	0.47	6	15	21	0.38	0.52	0.47	17
2020	18	34	52	7	17	24	0.39	0.50	0.46	5	11	16	0.28	0.32	0.31	18
2021	21	39	60	8	20	28	0.38	0.51	0.47	6	13	19	0.29	0.33	0.32	18
2022	23	45	68	9	22	31	0.39	0.49	0.46	10	28	38	0.43	0.62	0.56	16
2023	25	50	75	10	25	35	0.40	0.50	0.47	7	17	24	0.28	0.34	0.32	18
2024	27	55	82	11	28	39	0.41	0.51	0.48	8	19	27	0.30	0.35	0.33	18
2025	29	61	90	11	30	41	0.38	0.49	0.46	8	20	28	0.28	0.33	0.31	18
2026	31	66	97	12	33	45	0.39	0.50	0.46	4	10	14	0.13	0.15	0.14	19
2027	33	71	104	13	36	49	0.39	0.51	0.47	5	11	16	0.15	0.15	0.15	19
2028	35	77	112	14	39	53	0.40	0.51	0.47	5	12	17	0.14	0.16	0.15	19
2029	38	82	120	15	41	56	0.39	0.50	0.47	5	13	18	0.13	0.16	0.15	19
2030	40	87	127	16	44	60	0.40	0.51	0.47	6	14	20	0.15	0.16	0.16	19
2031	42	93	135	16	46	62	0.38	0.49	0.46	6	15	21	0.14	0.16	0.16	19
2032	44	98	142	17	50	67	0.39	0.51	0.47	13	33	46	0.30	0.34	0.32	18
2033	46	103	149	18	52	70	0.39	0.50	0.47	7	16	23	0.15	0.16	0.15	19
2034	48	108	156	19	54	73	0.40	0.50	0.47	7	17	24	0.15	0.16	0.15	19
2035	50	114	164	20	57	77	0.40	0.50	0.47	7	18	25	0.14	0.16	0.15	19
2036	52	119	171	21	60	81	0.40	0.50	0.47	8	19	27	0.15	0.16	0.16	19

18

The long-term avoided capacity from NEM generation is significant, while the short-term value of capacity is typically small. It is unreasonable for NEM excess energy rates to only account for short-term capacity benefits when NEM systems provide long-term capacity. To remedy this problem, excess energy rates should be based on the levelized avoided capacity costs over the life of the typical NEM system, which is more than twenty years.

**Q28. Please explain your concern with the capping of the LTAC.**

A28. The Company calculated both an “uncapped” and a “capped” LTAC. The “uncapped” represents the actual marginal energy and capacity value of generation to the Company (albeit with improper averaging noted below). The “capped” value is artificially lowered to the power purchase agreement (“PPA”) price of a “next best” bid received by the Company in a request for proposals several years ago. That is, if the theoretical “next best” resource would be projected to generate any electricity in a

<sup>18</sup> Appl. Vol. 5b at 189, LF-1 (No. 16-07001) (2016).

1 given hour, the bid price is used as an upper limit to capacity and energy value for  
2 that hour. The “next best bid,” however, does not represent a marginal cost: it is  
3 lower than the actual marginal price of energy and capacity during the hours that the  
4 theoretical solar resource generates. That is, if the Company were to include the  
5 theoretical PPA generation source, it may move the generation curve slightly to the  
6 right during hours it produces, but it does not flatten the entire curve to the PPA price.  
7 The theoretical “next best” generation source is also a proposed must-take  
8 obligation—which means that it is not the electricity generation that would occur “but  
9 for” additional generation added to the system.<sup>19</sup> Because the LTAC is supposed to  
10 represent a marginal cost, that is—the cost that the company would incur “but for”  
11 the new QF generation—and because the “capped” price is less than the marginal  
12 (“but for”) cost, the “capped” LTAC should not be used.

13 **Q29. Why should the LTAC be set at the marginal costs?**

14 A29. In general, the Company should be obtaining electric generation from any resource—  
15 and especially distributed renewable resources—without preference for the  
16 Company’s own resources or prejudice to other generators, provided the total costs to  
17 customers over the long term are not higher. I am not an attorney, but I understand  
18 that this concept is also provided in NAC 704.9292(1)<sup>20</sup> and the definition of

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<sup>19</sup> See Dep. of Shawn M. Elicegui Tr. 127:13-23 (attached as Ex. RG-3).

<sup>20</sup> NAC 704.9492(1) states as follows:

A utility shall file, as part of its resource plan, the methodology for estimating the rates for long-term avoided cost of the utility, including the capacity and energy components. The rates for long-term avoided cost must be based upon the utility’s preferred plan and be consistent with 18 C.F.R. § 292.304(a), (b), (c) and (e).

“avoided costs” in 18 C.F.R. § 292.101(b)(6).<sup>21</sup>

**Q30. Please explain your concern with the averaging of the avoided costs in all hours as the basis for the LTAC.**

A30. The Company’s LTAC calculation uses hourly MEC values—which tend to be higher during the daytime and evening hours, and lower at night—and adds capacity value to sixteen daytime hours during three high-consumption months (July through September). This approach assigns the capacity value of generation based on time of day to hourly MEC values. However, the Company’s calculation then inappropriately averages the hourly value for all hours in the month—that is, both the higher-valued daytime hourly prices and the lower nighttime values—together to create a monthly average value. This averaging approach effectively assigns capacity values to hours when capacity is not needed or valued, and decreases the capacity value in hours when capacity is needed and should be valued higher.<sup>22</sup> As a result, solar NEM generation—which occurs during the more-valuable daytime hours—is devalued by averaging those hours with lower value overnight hours.

**Q31. What methodology do you recommend for measuring the value of NEM generation, as an alternative to the MEC averaging?**

A31. I see two reasonable alternatives. First, the Commission can assign time-variant rates for all excess generation (which the Commission has called “time-of-production rates”), so that customers are paid more for energy they feed onto the grid when that

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<sup>21</sup> 18 C.F.R. § 292.101(b)(6) defines “avoided costs” as “the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source.”

<sup>22</sup> See Elicegui Dep. Tr. 121:10-122:5.



energy is more valuable. Second, the Commission can develop a “solar-weighted” avoided cost that provides the actual time-based value of electricity generated during the hours when solar NEM systems are most likely to generate energy, rather than devaluing those hours through a monthly average of all hours.

**Q32. Please describe the option to use time-of-production rates.**

A32. A time-of-production rate would compensate NEM customers for excess generation according to the value of energy at the time of day and season that energy is produced. In the Docket No. 15-07042, the Commission ordered NV Energy to establish time-of-production rates for NEM ratepayers that are based on the LTACs for each hour, grouped into the same seasonal time periods used for the Company’s time-of-use rates.<sup>23</sup> The Commission explained that time-of-production rates “enhance the price signal sent to NEM ratepayer [by informing them] as to the value of net excess energy.”<sup>24</sup> However, the Commission ordered time-of-production excess energy rates only if they take service under time-of-use rates.<sup>25</sup> There is no compelling reason to limit time-of-production excess energy rates to time-of-use purchase rates for NEM customers. Ensuring that excess energy rates accurately reflect the value of excess energy—regardless of whether a NEM customer opts for time-of-use for their delivered energy rates—would be consistent with one of the Commission’s basic rationales for the new buy/sell arrangement: avoiding conflating the two separate and distinct transactions of (1) selling energy to NVE and (2) buying

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<sup>23</sup> Modified Final Order at ¶ 338 (Feb. 17, 2016) (Nos. 15-07041, -07042).

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

energy from NVE.<sup>26</sup>

In this case, the Commission should consider applying time-of-production rates for all NEM customers that are based on *uncapped* LTACs. Time of production rates should also be directly calculated from the hourly MEC and capacity costs and hourly line loss values, rather than calculating an annual average price and then attempting to back-calculate a time-of-production price as the Company proposes to do.<sup>27</sup>

**Q33. Please describe the option to use the solar-weighted LTAC.**

A33. The LTAC is intended to reflect the costs avoided by purchasing energy from a qualified facility, pursuant to PURPA. Solar is a dominant resource in Nevada, and indeed the LTAC determined in this proceeding would form the basis for avoided energy and capacity costs for net-metered solar systems in the SPPC territory in the future, based on the Company's proposal in the pending general rate case. Those systems are almost exclusively solar photovoltaic ("PV") systems. As such, the marginal energy and capacity values during periods when solar PV produces should be the basis for the long-term energy costs for solar resources.

**Q34. How much of a difference does this make?**

A34. I have compared the Company's proposed average monthly uncapped LTAC<sup>28</sup> in its most recent Integrated Resource Plan filing for three sample years—2017, 2027, and 2037—with the results of using the same underlying hourly figures for the hours

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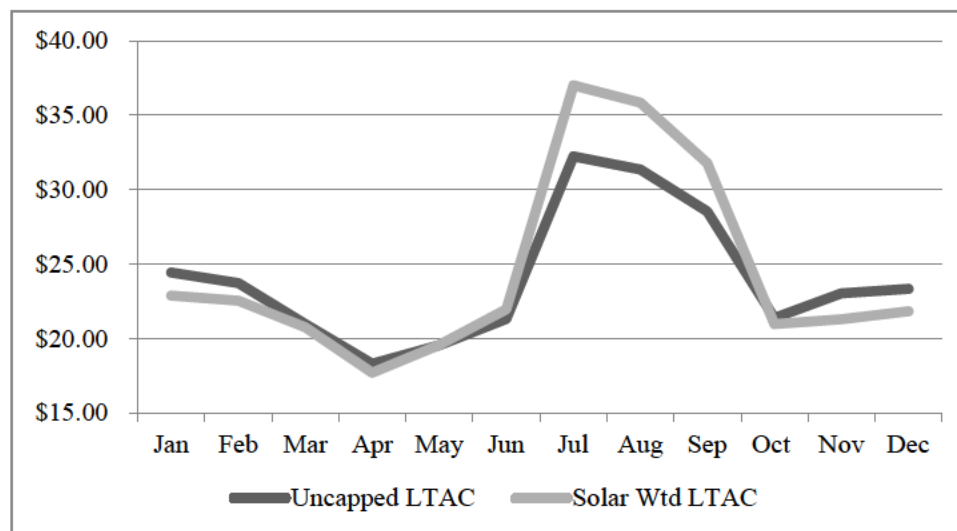
<sup>26</sup> See *id.*s ¶ 336.

<sup>27</sup> See SPPC's Resp. to VS 1-28 (this and all discovery responses referenced in this testimony are attached as Ex. RG-4).

<sup>28</sup> Docket No. 15-07001, SPPC's Appl. at Vol. 10, 131 of 396 at Fig. EA-21.

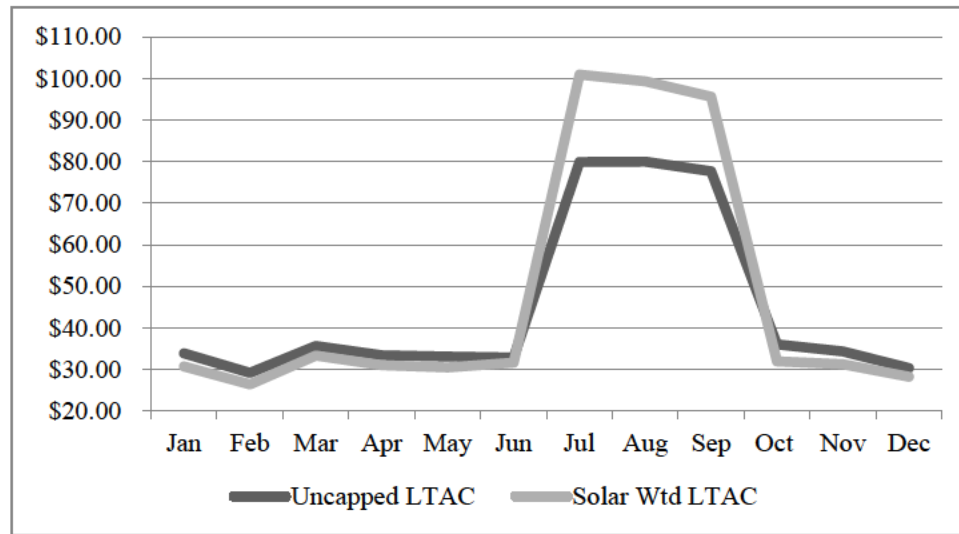
1 when solar produces and weighted for solar production.<sup>29</sup> The results of the solar  
2 window and weighting period values are evident in the following charts for each of  
3 those years. The result of this series of calculations yields an LTAC that is more  
4 representative of the time-based avoided energy and capacity costs in those years for  
5 a solar resource.

**Figure RG-1. Comparison of Uncapped LTAC with  
Solar-Weighted LTAC – 2017**

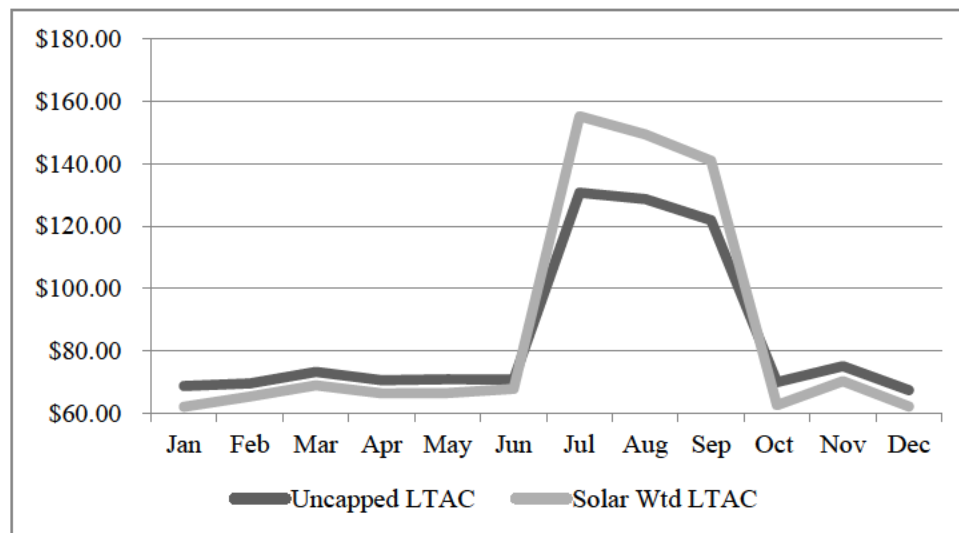


<sup>29</sup> These calculations were based on the confidential, Company-provided executable attachments VS 1-11(a) and Staff 39 in Docket No. 15-07001, which are too large to convert and file as an exhibit but are summarized here with underlying data and calculations being filed with the workpapers accompanying this testimony.

**Figure RG-2. Comparison of Uncapped LTAC with Solar-Weighted LTAC – 2027**



**Figure RG-3. Comparison of Uncapped LTAC with Solar-Weighted LTAC – 2037**



These results graphically depict the higher time-of-generation-based LTAC provided by solar resources across the proposed twenty-year term of the agreement, rather than using averages that devalue energy from solar NEM generation.

1   **Q35.       Please explain how the Company’s proposal would undervalue the capacity**  
2               **benefits of NEM generation.**

3   A35.       The Company’s proposal is based on projections for avoided costs in one year:  
4               2017.<sup>30</sup> The problem is that the proposal only reflects short-term capacity values,  
5               even though NEM systems provide generation capacity in the long-term. Avoided  
6               capacity costs are low in the short-term (when the Company likely has enough  
7               generation resources to meet current needs), and avoided capacity values are higher in  
8               the longer-term (when the Company needs to acquire new resources). The  
9               Company’s Figures LTAC-1 and LTAC-2 from Exhibit A to the Application in 15-  
10              07004, which I have included above illustrate how dramatically avoided capacity  
11              costs rise over the life of a NEM system in the uncapped marginal costs.  
12              Solar NEM systems provide capacity in the long-term because they have a useful life  
13              of at least twenty years; the typical system is warrantied for twenty to twenty-five  
14              years. As a result, NEM systems will avoid capacity addition costs for the Company  
15              over a period much longer than the three-year rate case window. The FERC has long  
16              acknowledged that smaller capacity increments and shorter lead times of distributed  
17              generation may affect future capacity needs.<sup>31</sup> However, the longer term value of  
18              NEM generation is never credited to those NEM generating customers under the  
19              Company’s proposal, because the excess energy rate is continually reset every rate  
20              case based on the short term capacity value at the time of each rate case.

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<sup>30</sup> Pollard Direct at 41:19-20; Dep. of Pollard Tr. at 111.

<sup>31</sup> 18 C.F.R. § 292.304(e)(2)(vii).

1   **Q36.       Would the Company’s proposal increase excess energy rates over time to reflect**  
2                   **the capacity values in later years?**

3   A36.       No. The Company’s proposal does not include any such provision. If the Company  
4                   continues to use the LTAC values from docket 15-08011 for the next 20 years, NEM  
5                   customers will eventually be credited for the higher longer-term capacity value of  
6                   those customers’ generation. However, the Company states that it intends to  
7                   recalculate excess energy rates regularly<sup>32</sup>, which under the Company’s methodology,  
8                   would use low short term capacity values in each future rate case.<sup>33</sup> NEM customers  
9                   would be denied the longer-term capacity value that their long-lived generating  
10                  equipment provides to the Company.

11   **Q37.       What do you recommend?**

12   A37.       Excess energy rates should be based on the levelized avoided capacity costs over the  
13                  life of the typical NEM system, which is more than 20 years. In other words, the  
14                  long-term avoided capacity costs should be summed over the life of a NEM system  
15                  and converted into a level annualized value.

16   **Q38.       How did the Company incorporate the value of avoided line losses?**

17   A38.       The Company used average hourly loss factors but did not apply them to energy and  
18                  capacity costs weighted for the hours of solar production. Generally, losses are  
19                  higher during the day due to temperature and loading conditions, thus one would  
20                  expect the reduction in losses to be more significant than average when rooftop solar  
21                  resources are generating. In addition, the marginal losses are higher than average  
22                  losses. Thus, the use of average hourly loss factors, or application to averaged energy

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<sup>32</sup> Elecegui Dep. Tr. 80:4-13.

<sup>33</sup> Dep. of Elicequi Tr. 80.

1 and capacity values, understates the value of line losses avoided by NEM. The hourly  
2 uncapped MEC values and avoided capacity costs should be adjusted hourly for that  
3 specific hour's losses, so that applying the hourly solar generation profile will capture  
4 the losses at the same time.

5 **Q39. Company witness Elicegui testifies that there is no fuel hedging value from NEM**  
6 **generation because the Company does not purchase financial products to hedge**  
7 **against fuel cost variability,<sup>34</sup> do you agree?**

8 A39. No. While the Company may not hedge against the risk of fuel cost variability, that  
9 does not mean that it does not exist and that it is not incurred. Because the company  
10 does not purchase financial contracts as a hedge against variability, the risk of fuel  
11 price variability falls to the Company. And, because fuel costs are a direct pass  
12 through to customers, through the Deferred Energy Adjustment, the risk is ultimately  
13 passed to customers. Therefore, there is a risk to customers—which in financial  
14 terms is equivalent to a cost—of fuel variability. There are financial products  
15 available at market prices to eliminate that risk, which set a market defined cost to the  
16 risk that the company passes through to customers. Just because the Company does  
17 not internalize the risk, or the cost of avoiding that risk, does not mean the risk  
18 disappears or that it has no market value. NEM customers provide generation without  
19 a fuel input, providing a physical hedge against fuel price variability risk, which  
20 passes through to the Company's other customers. The market sets a value to that  
21 hedge, even if the Company does not incur it.

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<sup>34</sup> Elicegui Direct at 20-21.

1 **Q40. Does the Company’s proposal adequately account for environmental costs and**  
2 **benefits of NEM?**

3 A40. No. The Company’s proposed excess energy rate does not account for environmental  
4 compliance benefits related to Nevada’s Renewable Portfolio Standard. The  
5 Company acquires portfolio energy credits from certain NEM generation, which the  
6 Company can either use for compliance with the Renewable Portfolio Standard or sell  
7 on the private market.

8 The Company receives a separate compliance benefit from NEM regardless of  
9 whether a customer assigns the portfolio energy credits to the Company: by reducing  
10 SPPC’s net retail sales, NEM reduces the number of credits the Company must  
11 acquire to meet the standard. Energy+Environmental Economics (“E3”) correctly  
12 explained this benefit:

13 The Nevada RPS establishes NV Energy’s annual compliance  
14 obligations as fixed percentages of retail sales. As a result, any  
15 NEM generation that reduces net retail sales reduces NV Energy’s  
16 compliance obligation. NV Energy is required to meet at least  
17 25% of its retail load by 2025, meaning that 1 MWh of non-  
18 incentivized NEM generation in 2025 would decrease NV  
19 Energy’s RPS compliance obligation by 0.25 kPC in that year.<sup>35</sup>

20 **Q41. Describe the relevant Renewable Portfolio Standard requirements.**

21 A41. The Company must acquire portfolio energy credits to comply with the Renewable  
22 Portfolio Standard. For the years 2015 to 2019, the Company must acquire credits  
23 equivalent to not less than 20 percent of the total electricity sold by SPPC to its retail

---

<sup>35</sup> E3, Nevada Net Energy Metering Impacts (2014), prepared for the PUCN, at 58-59,  
[http://puc.nv.gov/uploadedFiles/pucnv.gov/Content/About/Media\\_Outreach/Announcements/Announcements/E3%20PUCN%20NEM%20Report%202014.pdf](http://puc.nv.gov/uploadedFiles/pucnv.gov/Content/About/Media_Outreach/Announcements/Announcements/E3%20PUCN%20NEM%20Report%202014.pdf).



1 customers in Nevada. The standard becomes more stringent over time. In 2025, the  
2 Renewable Portfolio Standard is 25 percent.

3 In addition, the portfolio energy credits may have a market value. The Company is  
4 required to attempt to sell portfolio energy credits in excess of 125% of the  
5 compliance obligation for the given year.<sup>36</sup>

6 **Q42. How does the Company acquire portfolio energy credits from NEM generation?**

7 A42. NEM customers who participate in the RenewableGenerations incentive program  
8 must agree to assign all portfolio energy credits from an incentivized system to the  
9 Company.<sup>37</sup> Energy from solar PV systems placed in service by December 31, 2015,  
10 receive a 2.4 RPS multiplier if they are installed on the premises of a retail customer  
11 who uses more than half the system's generation.<sup>38</sup> The multiplier remains in effect,  
12 even though newly installed systems are not eligible for it. All customer-maintained  
13 distributed renewable energy systems receive a .05 adder for each kilowatt-hour  
14 generated. Taken together, a kilowatt-hour generated by a solar NEM system  
15 installed in 2015 is 2.45 times as valuable for RPS compliance as a kilowatt-hour  
16 generated by other types of renewable systems. This makes generation from the  
17 NEM systems in SPPC's territory—which are primarily solar systems installed before  
18 2016—especially valuable.

---

<sup>36</sup> *Id.* at 59.

<sup>37</sup> See NV Energy, SolarGenerations Program Handbook at 3,  
<https://www.nvenergy.com/renewablesenvironment/renewablegenerations/documents/handbooks/SolarGenerations-Handbook.pdf>.

<sup>38</sup> NRS 704.7822.

1   **Q43.       Will RPS-related benefits of NEM generation continue in 2017-19?**

2   A43.       Yes. Indeed, the Company relies on the assumption of steady generation from NEM  
3               systems that participate in the RenewableGenerations program when it plans its  
4               compliance with the Renewable Portfolio Standard. In the Company's most recent  
5               Integrated Resource Plan application, Company witness Jesse Murray explained that  
6               one of SPPC's modeling assumptions was that "credits from the  
7               RenewableGenerations incentive programs will continue until projects funded cease  
8               to generate energy (approximately 20 years). The plan assumes that the number of  
9               credits from RenewableGenerations will plateau in 2017 and then remain flat  
10              throughout the balance of the plan."<sup>39</sup>

11   **Q44.       What do you recommend?**

12   A44.       The Commission should modify the Company's proposed excess energy rate to  
13               account for both of the RPS-related benefits of NEM to the Company, the portfolio  
14               energy credits the Company receives from NEM generation and the reduced  
15               compliance obligation. I recommend determining this value based on the market  
16               value of portfolio energy credits. If the Commission requests information about any  
17               sales of portfolio energy credits in the past several years, it can determine the market  
18               value of the credits. The annual value of the acquired credits would be the market  
19               value of a credit, multiplied by the number of credits the Company acquires from  
20               NEM customers each year. The annual compliance-reduction value of NEM would  
21               be the market value of a credit, multiplied by the number of kilowatt hours of NEM  
22               produced in a year, multiplied 20% (the RPS in effect in 2017-19).

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<sup>39</sup> Direct Test. of Jesse Murray at 7:16-20 (No. 16-07001) (2016).

1 **VI. Customer Service Costs**

2 **Q45. Please explain your concern with the customer costs reflected in the NEM rates.**

3 A45. The proposed NEM rates reflect a level of customer service costs that are not  
4 representative of those that the Company will be incurring in the future. This issue  
5 arises in the proposed allocation of costs from two administrative departments: the  
6 Solar, Wind and Water Renewable department and the Billing-NVE North  
7 department.

8 In the NEM dockets 15-07041 and 15-07042, the Company stated that “[t]he majority  
9 of the labor in [the] Solar, Wind and Water Renewable department is dedicated to  
10 processing the applications for NEM customers.”<sup>40</sup> SPPC proposes to allocate costs  
11 from this department to NEM customers based on the number and status of  
12 applications that were submitted in 2015.<sup>41</sup> This is unreasonable because the  
13 department processed more applications for NEM customers in 2015 than it did prior  
14 to 2015 and far more than it will in 2017-19. The number of residential NEM  
15 applications in 2015 was a historical outlier, whereas the number of applications for  
16 NEM customers is now insignificant.

17 For the Billing-NVE North Department, the Company proposes to allocate the costs  
18 of two FTEs to residential and small commercial NEM customers because it claims  
19 that two FTEs served residential and small commercial NEM customers in 2015.<sup>42</sup> In  
20 this docket, the Company has not explained the services the Billing department  
21 provides NEM customers. In the NEM dockets, the Company’s application provided

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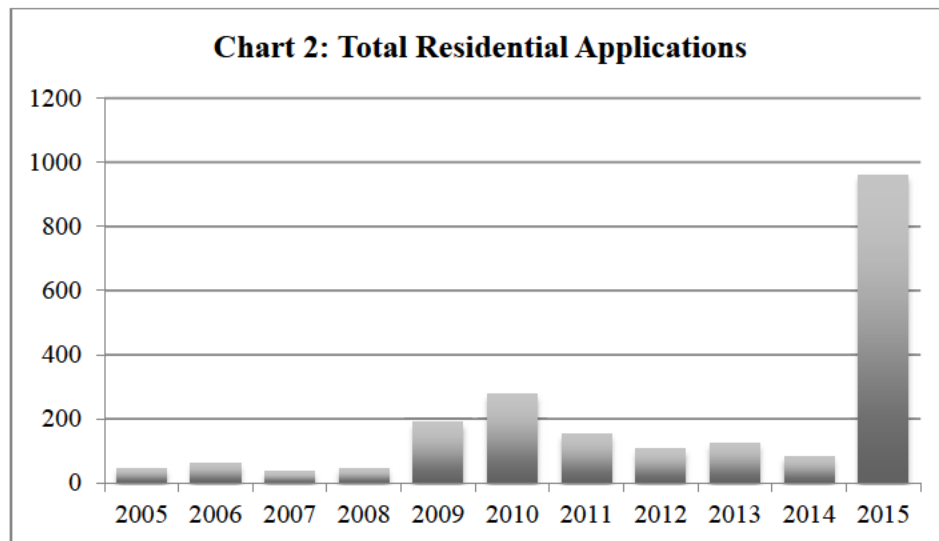
<sup>40</sup> Appl. Vol. 2, Narrative at 61-62 (15-07042) (2015).

<sup>41</sup> Direct Test. of Aaron Schaar at 7:1-7 (No. 15-07042) (2015) (“Schaar Direct”).

<sup>42</sup> *Id.* at 8:4-15.

1 a list of the most common questions NEM customers ask the department.<sup>43</sup> The  
2 questions are primarily relevant for customers who are first beginning to take service  
3 under NEM. For instance, the first question on the list is “Where am I in line to get  
4 my meter set?” Since there has been a precipitous drop off in new NEM customers,  
5 and no likelihood of return to the number of new customers in 2015 under current  
6 policies, it is unreasonable to allocate costs in 2017-19 on the assumption that the  
7 Company will require the same number of FTEs to help NEM customers onboard as  
8 it did in 2015.

9 Chart 2 shows the number of applications<sup>44</sup> over the ten years leading up to the  
10 change in rates in the NEM proceeding.



11  
12 As can be seen, 2015 is not representative of the number of applications historically.

13 **Q46. How many residential applications have there been thus far in 2016?**

14 **A46.** In January, there was one. Based on the Company’s response to discovery in this

---

<sup>43</sup> Appl. Vol. 2, Narrative at 60-61 (No. 15-07042) (2015).

<sup>44</sup> SPPC Resp. to VS 2-06.

1 case, there have been none since (through August). Clearly, the customer service  
2 costs for NEM customers should not be based upon those incurred in 2015, as that  
3 year was both an outlier historically and because the NEM docket last year marked a  
4 change in policy that resulted in a virtual end to new customer sign up.

5 Additionally, the 2015 customers have now all been grandfathered, and will not pay  
6 for the customer service charges allocated based on the 2015 customer numbers  
7 anyway. The D-1 NEM customers from 2015 will pay rates based on the D-1  
8 customer class. Assigning costs to the few customers who will sign up in 2016-2019,  
9 based on the large number of customers signing up in 2015 but who will not pay the  
10 charges, is not fair or reasonable. Customer service costs associated with pre-2016  
11 residential applications should be charged against the general body of D-1 customers,  
12 and only those costs attributable to one post-2015 residential applicant should be  
13 charged to the NEM cost of service.

14 **Q47. Do you have any other concerns with the allocation of customer service costs to**  
15 **NEM customers?**

16 A47. Yes. On a per-customer basis, SPPC proposes NEM customers pay almost twice as  
17 much as non-NEM customers toward the costs of the NVE North Call Center (D432).  
18 I do not believe the Company has adequately justified this proposal.

19 **Q48. How did the Company justify its proposed allocation of Call Center costs to**  
20 **NEM customers?**

21 A48. SPPC witness Schaar states that “It was determined in this CWFS that it takes about  
22 twice as much time to serve a NEM customer call compared to a call relating to the

1 full-requirements class.”<sup>45</sup> The Company has not supported this claim with any data  
2 or rationale. In discovery, Vote Solar requested all documentation and analysis upon  
3 which the determination was made that it takes about twice as long to serve a NEM  
4 customer, and the Company did not produce any.<sup>46</sup> Moreover, call logs do not  
5 differentiate between NEM and non-NEM calls.<sup>47</sup> Therefore, I believe there is no  
6 reasonable basis for allocating Call Center costs differently to NEM and non-NEM  
7 customers. I recommend allocating these costs *pro rata* to all NEM and non-NEM  
8 customers as a whole.

## 9 VII. Bill Impact Calculation

10 **Q49. Is the Company required to calculate the “NEM subsidy” rate?**

11 A49. Yes. Directive 15 of the Modified Order required the Company to “propose a line  
12 item entitled ‘NET ENERGY METERING SUBSIDY’ that will calculate the subsidy  
13 that each non-net metering ratepayer pays each month to subsidize net metering  
14 ratepayers.” The Company calculated this rate but has not shown the actual impact  
15 on the average customer. Nor has it put the amount into context of other subsidies  
16 inherent in the proposed rates.

17 **Q50. Have you performed that calculation?**

18 A50. Yes, I have. I first adjusted the NEM rates as described above to remove the effect of  
19 the Company’s interim step. This resulted in an increase in the “subsidy” as  
20 calculated by the Company. I have also compared this VS (Vote Solar) Revised

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<sup>45</sup> Schaar Direct at 9:11-18.

<sup>46</sup> SPPC Resp. to VS 1-57(a).

<sup>47</sup> SPPC Resp. to VS 1-57(d).

1 “NEM Subsidy” to the IS-2 subsidy to some irrigation customers.

**Table RG-2: Monthly Bill Impacts of “NEM Subsidy” and IS-2 Subsidy**

Class	Percent of Total	VS Revised “NEM Subsidy”	Number of bills	Monthly Bill Impact of VS revised “NEM Subsidy”	Average monthly bill impact of “IS-2 Subsidy”
DM-1	5.760%	\$52,377	861,540	\$0.06	\$0.33
D-1	32.299%	\$293,695	2,587,092	\$0.11	\$0.61
GS-1	9.199%	\$83,648	485,147	\$0.17	\$0.92

2 This table demonstrates that the impact of the “NEM subsidy” as modified (i.e.  
3 increased for remaining at the actual first rung of the Commission’s ladder  
4 approach), is eleven cents per month for the average D-1 non-NEM customer –about  
5 1/5 of the irrigation subsidy.

6 **Q51. Are there any other relevant comparisons?**

7 A51. Yes. Some employees of the Company enjoy discounted rates.<sup>48</sup> These discounts  
8 total \$434,210, over 97% of which is in the D-1 class. This is nearly half of the  
9 “NEM subsidy.” Spreading the cost responsibility for employee discounts to all  
10 classes in the same fashion results in a five-cent impact on the average D-1 customer.

11 The reason I make these comparisons is to put the so-called “NEM subsidy” in  
12 perspective with existing clear and defined subsidies. I think it is important for  
13 customers to understand that the “NEM subsidy” that has received so much attention  
14 over the past ten months amounts to about 11¢ per month. I also think it would be  
15 helpful for customers to see the other subsidies on their bill: 61¢ for the irrigation  
16 customers and 5¢ for the employee discounts. I recommend the Commission require

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<sup>48</sup> Dep. of Pollard Tr. 106:20-21.

1 SPPC to add these as line items on customer bills.

2 I also note that the “Rule 9 Allowances” contain an inherent subsidy. Those  
3 allowances spread the cost of new connections among existing customers. Not all  
4 customers have the same connection costs, however. Those customers within a class  
5 with connection costs lower than the allowance still pay based on the higher costs of  
6 the allowance: subsidizing other customers. If the Company calculates and discloses  
7 one subsidy, it would be more fair to calculate and disclose all of the subsidies.

8 **Q52. Do you have any other concerns about SPPC’s compliance with the Modified**  
9 **Final Order in Docket No. 15-07042?**

10 A52. Yes. From information obtained through discovery, it appears that SPPC is not  
11 performing the hourly settlement that the Commission ordered.

12 **Q53. What hourly settlement did the Commission order?**

13 A53. In the Modified Final Order, the Commission adopted a buy/sell arrangement as the  
14 mechanism for compensating NEM customers for their “net excess energy.”<sup>49</sup> The  
15 Commission found that the arrangement could promote the purposes of SB 374  
16 “[t]hrough hourly settlement.”<sup>50</sup> Although I am not a lawyer, I believe the most  
17 natural reading of the Order is that SPPC must measure the difference between a  
18 customer’s generation and energy use each hour, and to credit or bill the customer for  
19 the net result over the hour, with the total of each hourly credit or charge summed and  
20 billed at the end of each month. For example, if a customer exports 100 units of  
21 electricity to the grid and in the same hour receives 300 units of electricity, the

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<sup>49</sup> Modified Final Order at ¶ 336, (Feb. 17, 2016) (Nos. 15-07041, -07042).

<sup>50</sup> *Id.*



customer would be charged for 200 units for that hour. The charge would be included in the end of the month totals that are billed to the customer. That is what the Regulatory Operations Staff proposed in the NEM docket last year. For illustrative purposes, I have created a chart that shows the bill impacts of using the hourly-netting method or the SPPC in calculating customer bills in three different hours. In these examples, I use 10¢ as the price for grid-supplied electricity and 5¢ as the excess energy rate:

**Table RG-3: Comparison of hourly netting and SPPC billing method in three hypothetical hours**

	Hour 1	Hour 2	Hour 3
Inflow	200	200	200
Outflow	100	200	300
Net	100	0	-100
Hourly netting bill	\$10.00	\$-	\$(5.00)
SPPC method bill	\$15.00	\$10	\$5

**Q54. Why are you concerned that SPPC is not complying with the order with regard to the hourly settlement?**

A54. In discovery, Vote Solar requested information about the total excess electricity NEM customers fed onto the grid in 2016, about the total number of kWhs credited to NEM customers as net excess energy, and how the Company calculates the difference between the two. The Company's response stated that "[t]he net excess energy is the kWhs received."<sup>51</sup> Vote Solar also requested the 2016 bill impacts of crediting NEM customers for net excess energy through hourly settlement, rather than compensating

<sup>51</sup> SPPC Resp. to VS 4-20(a)-(c).

1 NEM customers for total excess energy. The Company's response states that "there  
2 is no analysis to be performed."<sup>52</sup>

3 **Q55. Why does this concern you?**

4 A55. There are two reasons. First, SPPC's failure to perform the hourly settlement has  
5 adverse bill impacts for NEM customers. The implication is that SPPC is accruing all  
6 delivered kWhs separately from all customer-generated kWh and billing them  
7 separately under the NEM rate and the excess energy rate, respectively. That is, the  
8 response implies that there is no netting even within an hour.

9 NEM customers would have lower bills if some of their excess energy offset their  
10 delivered energy, rather than receiving SPPC's current excess energy rate for all  
11 power flow out of the customer-generator's premises. Unlike the example above,  
12 where the net of 100 units generated and 300 units received in an hour results in a  
13 charge based on 200 units (valuing the generated 100 units at the retail rate for sales  
14 from the utility), the answers to discovery responses suggest that the customer would  
15 receive the low "excess energy" rate for the 100 units and pay the higher retail rate  
16 for the 300 units.

17 Second, although I am not a lawyer, I remain concerned that SPPC is not offering net  
18 metering, as required by NRS 704.773(1). Without hourly netting, the buy/sell  
19 arrangement may not fit the Commission's understanding of the definition of net  
20 metering. I urge the Commission to consider restoring netting of kilowatt-hours over  
21 the billing period, rather than over an hour, to ensure that SPPC offers net metering  
22 consistent with the statute.

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<sup>52</sup> SPPC Resp. to VS 4-20(d).

## VII. Recommendations

**Q56. What do you recommend the Commission do in this proceeding?**

A56. I recommend the Commission take the following actions:

1. Reject SPPC's proposed mid-rung step changes to the NEM rates based on the proposal to increase non-NEM rates as contrary to the spirit and actual language of the Modified Order.
2. Require SPPC to use the delivered load shapes in the marginal cost study to assign costs to the NEM classes, as these shapes incorporate the utility's costs of standing by to meet changes in customer load.
3. Modify the avoided cost rate used to develop the rate for excess energy consistent with my discussion herein.
4. Allocate customer service costs *pro rata* to all NEM and non-NEM customers as a whole within each group's general classification (i.e. D-1 and D-1 NEM together, and GS-1 and GS-1 NEM together).
5. Specify the bill impacts for the average customer in each class in its Order in this proceeding. Further, I recommend that the irrigation, employee discounts, and Rule 9 subsidies be added as line items on customer bills.
6. Require the Company to bill customers based upon hourly netting as ordered by the Commission in its Modified Final Order. The Company's current method results in NEM customers paying more. Further, the Company should be required to make refunds to customers for the over-collections while the current rates have been in effect.

1    **Q57.**        **Does this conclude your testimony?**


2    A57.        Yes, it does.

**AFFIRMATION**

STATE OF COLORADO       )  
  )  
COUNTY OF BROOMFIELD   )     ss.

I, Rick Gilliam, do hereby swear under the penalty of perjury the following:

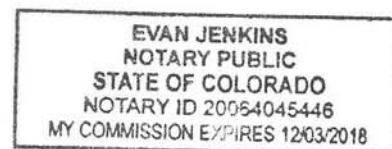
That I am the person identified in the attached prepared Direct Testimony and that such testimony was prepared by me under my direct supervision; that the answers and information set forth therein are true and accurate to the best of my personal knowledge and belief; and that if asked questions set forth herein, my answers thereto would, under oath, remain the same.

  
Rick Gilliam

Subscribed and sworn before me this 7th day of October, 2016.

  
Notary Public

My commission expires: 12/03/2018



## CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing **Direct Testimony of Rick Gilliam on Behalf of Vote Solar** in Docket Nos. 16-06006/07/08/09 upon the persons listed below.

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/s/ Colleen Fitzgerald  
An employee of Earthjustice

# Exhibit RG-1: Statement of Qualifications



**James F. “Rick” Gilliam**  
**Program Director, Vote Solar**  
[rick@votesolar.org](mailto:rick@votesolar.org)  
**303-550-3686**

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## **Professional Employment**

*January 2012 to Present:* Program Director, DG Regulatory Policy (formerly Research Director), Vote Solar. Managing the technical and policy research for Vote Solar, and engaging in state, regional, and national campaigns related to distributed solar generation. Expert witness in many formal state regulatory proceedings addressing issues related to distributed solar resources.

*March-April 2012:* Solar Energy Industries Association - Under a short term contract with SEIA to participate in an Xcel Energy distributed solar generation Technical Review Committee and to manage consulting support also under contract to SEIA.

*January 2007 to January 2012:* SunEdison, LLC - Various solar policy related positions beginning with Director of Interior West Policy to Managing Director of Western Policy (July 2007), to Vice President of North American Government Affairs (July 2009) to Global Policy Advisor (July 2011). In each of these roles, directed and managed policy research, development and implementation for the company for the various geographies identified at the regulatory and legislative levels.

*June 2011 to December 2011:* Chair of the Solar Alliance Board.

*Dec 1994 to Jan 2007:* Senior Energy Policy Advisor, Western Resource Advocates (formerly the Land and Water Fund of the Rockies), Boulder, Colorado. Develop innovative clean energy and air quality public policies within the economic and cultural framework unique to this region. Lead environmental advocate in development of Arizona Environmental Portfolio Standard, Nevada Renewable Portfolio Standard implementation rules, Colorado Renewable Energy Standard legislative proposals, and the 2003 Utah Renewable Energy Standard legislative proposal. Principal author of Colorado’s Amendment 37 and lead advocate for related PUC rule development.

*Jan 1983 to Dec 1994:* Director of Revenue Requirements, Public Service Company of Colorado, Denver, Colorado. Primary responsibility for development of formal rate-related filings for this investor-owned utility for electric, gas, and thermal energy service in two states and the FERC. Developed and responded to a variety of proposed mechanisms to encourage the use of energy efficiency technologies, including innovative rate design approaches.

*Dec 1976 to Dec 1982:* Technical Witness (Engineer), Federal Energy Regulatory Commission, Washington, D.C. Testified as expert witness on behalf of the FERC in wholesale rate filings on technical, accounting, and economic issues related to rate design, pricing, and other issues.

## **Education**

Masters, Environmental Policy and Management, University of Denver, Denver, Colorado  
Bachelor of Science, Electrical Engineering, Rensselaer Polytechnic Institute, Troy, New York

## ***Summary of Formal Testimonies and Rulemaking Participation***

### **Representing Vote Solar**

- Public Service Company of CO Docket 16AL-0048E, et al: Three docket settlement
- Public Service Company of CO Docket 16AL-0048E: GRC Phase2
- Public Service Company of CO Docket 16A-0055E: Solar\*Connect 2 Subscription Proposal
- Nevada Energy Docket No. 15-07041, et al.: Cost of Service Study and Net Metering Tariffs
- El Paso Electric Company Case No. 15-00127-UT: General Rate Case
- Public Service Company of CO Docket 13AL-0958E: Qualifying Facilities Rates/Remand
- Public Service Company of CO Docket 14A-0302E: Solar\*Connect Subscription Proposal
- We Energies (WI) Docket No. 05-UR-107, General Rate Case
- Rocky Mountain Power (UT) Docket No. 13-035-184: General Rate Case
- Public Service Company of CO Docket 13AL-0958E: Qualifying Facilities (QF) Rates
- Public Service Company of CO Docket 13A-0836E: 2014 RES Compliance Plan
- Public Service Company of CO Docket 13AL-0695E: Line Extension Policy
- Idaho Power Company, Case No. IPC-E-12-27, Net Metering Service
- Arizona Public Service, et al., Docket No. E-01345A-10-0394, et al., RES Compliance
- New Mexico PRC Case No. 11-00218-UT: Renewable Portfolio Standard Reasonable Cost Threshold
- Tucson Electric Power Docket No. E-01933A-12-0291: General Rate Case

### **Representing Sunedison LLC**

- Public Service Co of New Mexico Case No. 10-00037-UT 2010 Procurement Plan
- Public Service Company of CO Docket 09A-772E: 2010 Compliance Plan
- Public Service Company of CO Docket 09AL-299E: 2009 Rate Case Phase 2
- Public Service Company of CO Docket 08A-532E: 2009 Compliance Plan
- Colorado PUC Rulemaking Docket 08R-424E: Renewable Energy Standard Rules
- New Mexico PRC Case No. 08-00084-UT: Reasonable Cost Threshold Rulemaking
- Nevada PUC Docket No. 07-10007: Petition for Declaratory Order re 3<sup>rd</sup> party ownership
- Public Service Company of CO Docket 07A-447E: 2007 Resource Plan
- Public Service Company of CO Docket 07A-462E: 2008 Compliance Plan
- New Mexico PRC Case No. 07-00157-UT: RPS Rulemaking; diversity standard
- Public Service Company of CO Docket 06A-478E: 2007 Compliance Plan
- Public Service Company of CO Docket 06A-534E: Approval of Alamosa Contract

### **Representing large commercial customers**

- Nevada Power Company Docket No. 02-11037: Electric Tariff Rule related to loss factor associated with metering secondary service at primary level
- Nevada Power Company Docket No. 02-5044: Electric Tariff Rule related to metering

### **Representing Western Resource Advocates (formerly the Land and Water Fund of the Rockies)**

- CO: PSCo Docket 06S-234EG: 2006 Rate Proceeding - Windsource issue
- CO: PSCo Docket 05A-112E: Renewable Energy Standard Rulemaking

- CO: PSCo Docket 05A-288E: Electric Quality of Service Monitoring & Reporting Plan: 2007-08
- CO: PSCo Dockets 06S-016E: Renewable Energy Service Adjustment
- CO: PSCo Consolidated Dockets 04A-214E, 215, 216E: Least-cost Resource Plan
- CO: PSCo Docket No. 04S-164E: Windsource Program & Net Metering in Rate Case Phase 2
- CO: PSCo Docket 02S-315EG: 2002 Rate Proceeding - Windsource issue
- NV: Nevada Power Company Docket No. 01-7016: Demand-side Management Programs
- UT: PacifiCorp Rate Case Docket No. 01-035-10: Demand-side Mgt Cost Recovery
- CO: PSCo Docket No. 00A-008E: IRP - DSM & Wind Resources
- UT: PacifiCorp Rate Case Docket No. 99-035-10: System Benefit Charge Proposal
- AZ: Arizona Restructuring Rulemaking Docket No. 99-205: Renewable Portfolio Standard
- CO: PSCo Docket No. 98A-511E: Air Quality Improvement Rider
- AZ: Arizona Restructuring Rulemaking Docket No. 94-165: Stranded Cost Proceeding
- NV: Nevada Power Company Docket No. 94-7001 (Refiled): Integrated Resource Plan
- NM: Southwestern Public Service Case No. 2678: Merger Proceeding
- CO: PSCo Docket No. 95A-531EG: Merger Proceeding

#### **Representing Public Service Company of Colorado**

- PSCo Rate Revenue Requirements Proceeding Docket No. 93S-001EG
- PSCo Demand-side Management & Decoupling Proceeding Docket No. 91A-480EG
- PSCo Incentive Regulation Investigation Docket No. 93I-199EG
- PSCo Rate Proceeding Docket No. 91S-091EG
- PSCo Fort St. Vrain Supplemental Settlement Agreement Docket No. 91A-281E
- Various PSCo FERC rate proceedings, and subsidiary rate proceedings

#### **Representing the Staff of the Federal Energy Regulatory Commission**

- Connecticut Light & Power Company, Docket ER 82-301
- Kentucky Utilities Company, Docket ER 81-341
- Philadelphia Electric Company, Docket ER 80-557, et al.
- Minnesota Power & Light Company, Docket ER 80-5
- Boston Edison Company, Docket ER 79-216, et al.
- Connecticut Light & Power Company, Docket ER 78-517
- South Carolina Electric & Gas Company, Docket ER 78-283
- Minnesota Power & Light Company, Docket ER 78-245
- New England Power Company, Docket ER 78-78
- New England Power Company, Docket ER 77-97

Exhibit RG-2:  
Deposition of  
Timothy Pollard

BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA

-oOo-

Application of Sierra Pacific Power Company Docket No. 16-06006  
d/b/a/ NV Energy for authority to adjust  
its annual revenue requirement for general  
rates charged to all classes of electric  
customers and the relief properly related  
thereto.

Application of Sierra Pacific Power Company Docket No. 16-06007  
d/b/a/ NV Energy for authority to adjust  
its annual revenue requirement for general  
rates charged to all classes of gas  
customers and for relief properly related  
thereto.

Application of Sierra Pacific Power Company Docket No. 16-06008  
d/b/a/ NV Energy for approval of new and  
revised depreciation and amortization rates  
for its electric operations.

Application of Sierra Pacific Power Company Docket No. 16-06009  
d/b/a NV Energy for approval of new and  
revised depreciation and amortization rates  
for its gas operations.

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DEPOSITION OF

TIMOTHY POLLARD

September 20, 2016

Reno, Nevada

JOB NO. 339137

REPORTED BY: DEBORAH MIDDLETON GRECO, CCR #113, RDR, CRR

Litigation Services | 800-330-1112  
www.litigationservices.com

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<p>1 And you were just sworn. You understand your</p> <p>2 testimony today is under oath, the same as it would be if it was</p> <p>3 in front of the commission or in a court?</p> <p>4 A I do.</p> <p>5 Q Okay. And have you been deposed previously?</p> <p>6 A I have.</p> <p>7 Q Okay. And how many times?</p> <p>8 A Once.</p> <p>9 Q Once. Okay.</p> <p>10 And was that last year?</p> <p>11 A Yes, it was.</p> <p>12 Q So a couple of things to keep in mind as we go through</p> <p>13 the deposition today.</p> <p>14 If I ask any questions that you don't understand,</p> <p>15 which is bound to happen at least a few times today, please feel</p> <p>16 free to let me know. I will try to rephrase it or clarify.</p> <p>17 Is that fair?</p> <p>18 A That's fair.</p> <p>19 Q And if you answer, I will assume that you understood</p> <p>20 the question.</p> <p>21 Is that fair?</p> <p>22 A That is fair.</p> <p>23 Q If you need to take a break at any point today, just</p> <p>24 let us know. We can take a break.</p> <p>25 I just ask that if there's a question pending, that we</p>	<p>1 Q Are there any edits or changes or errors in the</p> <p>2 testimony, in the prefiled testimony, that you have in front of</p> <p>3 you, Exhibit 2, that you are aware of?</p> <p>4 A There's one correction that I have. It's on page 41</p> <p>5 of my testimony, line 10.</p> <p>6 Q Okay.</p> <p>7 A It states, the total amount of this shortfall is</p> <p>8 approximately 113,000.</p> <p>9 The 113,000 should be changed to 114,000, which is the</p> <p>10 same number presented on page 18 of my testimony.</p> <p>11 Q So, with that correction, there is nothing else that</p> <p>12 you are aware of today that needs to be corrected in your</p> <p>13 prefiled testimony, Exhibit 2?</p> <p>14 A That is correct.</p> <p>15 Q And if you could turn -- maybe you don't need the</p> <p>16 reference since it is your CV.</p> <p>17 I'm turning to the -- what's page 1 of 2 of your</p> <p>18 Exhibit 1, your resume' or CV, so I understand your work</p> <p>19 responsibilities for the company.</p> <p>20 Your current job title is a pricing specialist; is</p> <p>21 that right?</p> <p>22 A That's correct.</p> <p>23 Q Can you tell me what a pricing specialist does for</p> <p>24 NV Energy?</p> <p>25 A My main responsibilities are cost of service and rate</p>
Page 7	Page 9
<p>1 answer it before we take a break. Okay?</p> <p>2 A Okay.</p> <p>3 Q Okay. Mr. Pollard, you are employed by NV Energy; is</p> <p>4 that correct?</p> <p>5 A That is correct.</p> <p>6 Q And you filed prefiled testimony in the general rate</p> <p>7 case, which is 16-06006; is that correct?</p> <p>8 A That is correct.</p> <p>9 Q I am handing you what's been already marked as</p> <p>10 Exhibit 2 in this case.</p> <p>11 Is that your prefiled testimony in the general rate</p> <p>12 case?</p> <p>13 A For the direct filing, yes.</p> <p>14 Q Have there been any other filings of your testimony in</p> <p>15 this case?</p> <p>16 A The company provided a certification filing.</p> <p>17 Q Okay. So there has only been direct testimony, but it</p> <p>18 was filed in the direct case, and then filed again for the</p> <p>19 certification filing; is that what you are saying?</p> <p>20 A A certification update, yes.</p> <p>21 Q Okay. And that was an errata; is that right? It</p> <p>22 wasn't the full testimony that was refiled for the certification</p> <p>23 filing, was it?</p> <p>24 A No. It was just a certification update, not an</p> <p>25 errata. It was just part of the GRC process.</p>	<p>1 design issues for the regulatory pricing group.</p> <p>2 Q Do you do that for both Sierra Pacific and Nevada</p> <p>3 Power?</p> <p>4 A I do.</p> <p>5 Q When you say cost of service and rate design issues,</p> <p>6 what type of issues do you deal with as a pricing specialist?</p> <p>7 A Some of our main responsibilities are general rate</p> <p>8 case filings. However, there are also a variety of different</p> <p>9 issues that our group is involved with that span the company.</p> <p>10 Q And are you involved with all of those issues</p> <p>11 involving cost of service and rate design?</p> <p>12 A No.</p> <p>13 Q Are there types of issues that you personally are</p> <p>14 involved in in cost of service and rate design?</p> <p>15 A It varies.</p> <p>16 Q Do you conduct cost of service studies?</p> <p>17 A I have in the past.</p> <p>18 Q How many have you conducted?</p> <p>19 A I supported the Sierra marginal cost study in docket</p> <p>20 15-07042 and Sierra's 2013 general rate case, 13-06002.</p> <p>21 And there was an additional cost study for the</p> <p>22 California territory prior to us selling it, I believe in 2008.</p> <p>23 Q Is that it?</p> <p>24 I didn't want to cut you off if there are others that</p> <p>25 you are trying to remember.</p>

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<p style="text-align: right;">Page 10</p> <p>1 A I believe those are the ones that I supported, yes.</p> <p>2 Q Did you participate in conducting the cost of service</p> <p>3 study in the current general rate case, 16-06006?</p> <p>4 A I provided review, but I did not have the primary</p> <p>5 responsibility.</p> <p>6 Q Are you familiar with the cost of service study that</p> <p>7 you reviewed?</p> <p>8 A Generally, yes.</p> <p>9 Q Did you prepare what is identified as, I think it's</p> <p>10 Schedule O in this case?</p> <p>11 A Statement O I support, yes.</p> <p>12 MR. BENDER: Let me mark that.</p> <p>13 (Exhibit 3 marked for identification)</p> <p>14 BY MR. BENDER:</p> <p>15 Q Mr. Pollard, I'm handing you what has been marked as</p> <p>16 Exhibit 3.</p> <p>17 Is that the Statement O that you prepared in this</p> <p>18 case?</p> <p>19 A For the certification filing, yes.</p> <p>20 Q And that is the most recent version; is that correct?</p> <p>21 A Yes.</p> <p>22 Q Mr. Pollard, you said that you provided review and are</p> <p>23 generally aware of the cost of service study in this case; is</p> <p>24 that right?</p> <p>25 A That's correct.</p>	<p style="text-align: right;">Page 12</p> <p>1 Q And then how long is the review process by other</p> <p>2 members of the group?</p> <p>3 A It can vary from a few weeks to maybe even more than a</p> <p>4 month, depending on timing and workload.</p> <p>5 Q And when you reviewed the cost of service study for</p> <p>6 the current general rate case, what was your process that you</p> <p>7 went through to review that cost of service study?</p> <p>8 A A couple of different steps. We would review</p> <p>9 preliminary results from the cost study during meetings with the</p> <p>10 group.</p> <p>11 And then, also, I would use -- I use that as an input</p> <p>12 into Statement O. And so I would input draft versions.</p> <p>13 Q Anything else?</p> <p>14 A No.</p> <p>15 Q So inputting into Statement O and draft versions.</p> <p>16 Were you creating Statement O simultaneous to the cost</p> <p>17 of service study?</p> <p>18 A I was.</p> <p>19 Q And as revisions were made to the cost of service</p> <p>20 study, you were making revisions to Statement O?</p> <p>21 A And additional changes, depending on what needed to be</p> <p>22 updated within Statement O, yes.</p> <p>23 Q You have read through the entire cost of service study</p> <p>24 that Mr. Bohrman created; is that fair?</p> <p>25 A I have reviewed most of it. I don't know if I would</p>
<p style="text-align: right;">Page 11</p> <p>1 Q Was Mr. Bohrman, I believe is how you pronounce that,</p> <p>2 responsible for conducting the cost of service study?</p> <p>3 A He supports the marginal cost study, yes.</p> <p>4 Q Is supporting different than preparing?</p> <p>5 A It can be.</p> <p>6 Q Who prepared the cost of service study?</p> <p>7 A The individual in the pricing group with the primary</p> <p>8 responsibility was Mr. Aaron Schaar.</p> <p>9 Q Mr. Schaar had primary responsibility, Mr. Bohrman</p> <p>10 supports it, and you provided some review of it; is that right?</p> <p>11 A That's correct.</p> <p>12 Q Can you walk me through, generally, the process of</p> <p>13 preparing the cost of service study within your group and</p> <p>14 providing your review and any other steps there are in that</p> <p>15 process before it's filed?</p> <p>16 A Generally, a person will be tasked with the</p> <p>17 responsibility of updating the study. They will start on that</p> <p>18 task by requesting inputs throughout the company, making any</p> <p>19 required changes from the previous study, and getting to results</p> <p>20 that are then reviewed by others in the group.</p> <p>21 Q How long is that process between starting to make</p> <p>22 reviews of the study to the point where review is sought by</p> <p>23 other members of the group?</p> <p>24 A I would say, for a general rate case filing, several</p> <p>25 months.</p>	<p style="text-align: right;">Page 13</p> <p>1 say 100 percent of it.</p> <p>2 Q Is it fair that you reviewed most of it several times,</p> <p>3 as there were multiple iterations of the cost of service study,</p> <p>4 and you were making revisions to Statement O?</p> <p>5 A Yes, I think that's fair.</p> <p>6 Q So it's fair to say that you are fairly familiar with</p> <p>7 the cost of service study?</p> <p>8 A Yes, I am familiar with it.</p> <p>9 Q And you are familiar with Statement O, as the creator</p> <p>10 of that document, right?</p> <p>11 A Well, I updated the existing Statement O that was</p> <p>12 previously approved by the commission for this filing.</p> <p>13 But I do support that here, yes.</p> <p>14 Q And you are familiar with it?</p> <p>15 A Yes.</p> <p>16 Q You also refer to the team conducting the review of</p> <p>17 the cost of service study.</p> <p>18 Is there a name for that team?</p> <p>19 A No.</p> <p>20 Q How do you refer to it?</p> <p>21 A They were individuals within the pricing group.</p> <p>22 Q Do you remember their names?</p> <p>23 A Myself, Mr. Schaar, Mr. Bohrman, and Miss Walsh.</p> <p>24 Q Anyone else?</p> <p>25 A No.</p>



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1	Q Are you familiar with how transmission costs are	1	A That's the end result.
2	allocated in the cost of service study?	2	The first step is the probability, using the 11 years
3	A Yes.	3	of data, for the month, day of week, and hour combination.
4	Q Can you tell me your understanding of how transmission	4	Q So the determination of which months, days of week,
5	costs are allocated?	5	and hour, rather than individual dates, because dates fall on
6	A In the marginal cost study, the probability of peak	6	different days of the week; is that the idea?
7	allocator, or marginal cost responsibility factor, is used to	7	A That's the final mapping.
8	identify those classes with the highest cost of transmission.	8	The first step is to use the ten years of historical
9	So it's similar to allocating costs across all	9	and one year of forecast. So you determine a probability for
10	classes.	10	month, day of week, and hour combination using approximately 44
11	Q So to make sure I understood that.	11	observations.
12	There's a probability of peak input into the	12	So January has four Mondays, hour one. So January,
13	allocation; is that right?	13	Monday, hour one, there's four combinations each year.
14	A That hourly factor is what determines which classes	14	Over those 11 years, you have 44 observations, you
15	have the highest or lowest transmission costs across all hours	15	determine the probability of that exceeding 90 percent of peak.
16	of the year.	16	Q And how is that done? The historical data, you look
17	Q Can you tell me how the probability of peak factor	17	at whether or not any of those 44 combinations exceeded 90
18	determines which classes have the highest and lowest cost of	18	percent of the system peak?
19	transmission across all hours of the year?	19	A We look at all hours across the year.
20	A The POP factor is allocated on an hourly basis for all	20	Q We're talking about the first step, looking at month,
21	hours across the year. It's normalized to where each hour has a	21	day, hour combination, right?
22	weighting, those weightings are multiplied by the hourly class	22	A All hours across the year are looked at.
23	loads, and that is -- the load-weighted averages by time of use	23	Q They are looked at sequentially?
24	period by class are input into the marginal cost study.	24	A It's one calculation.
25	Those are multiplied by the unit costs and the	25	Q Is there a formula to do the calculation?
Page 15		Page 17	
1	rescaling factor to develop the marginal cost revenues for	1	A Yes.
2	transmission by time of use period and class.	2	Q Is the formula in a spreadsheet?
3	Q Okay. Backing up a little bit. I asked about	3	A Yes.
4	probability of peak, and you referred to POP, P-O-P.	4	Q Why do you want to determine the probability that a
5	They are the same thing, correct?	5	month, day, hour combination may exceed 90 percent of system
6	A They are.	6	peak?
7	Q And you said that the POP factor is calculated on an	7	A So we move that combination into a rate-effective
8	hour basis for all hours, correct?	8	year. That information is then sum normalized, so all hours
9	A Yes. Each hour across the year has a POP value.	9	across the year have a relative weight.
10	Q How is the POP value determined for each hour?	10	That information then is multiplied by the class
11	A We start with ten years of hourly historical loads and	11	loads. That is in order to determine that those classes with
12	one year of hourly forecast information.	12	the highest loads in those hours that have the highest
13	A probability of exceeding 90 percent of the peak is	13	probability are assigned the highest marginal transmission cost.
14	determined by month, day of week, and hour.	14	Q I think maybe my question wasn't clear.
15	Those are then mapped over to a rate-effective year	15	Why -- what's the relevance of 90 percent of system
16	and normalized to where each hour gets an allocation.	16	peak to determining the highest cost of transmission? What's
17	Q Okay. So what is the probability being determined?	17	the relevance of 90 percent of system peak?
18	The probability of what?	18	A The 90 percent level is based on discussions with
19	A It is the probability of exceeding 90 percent or	19	planning departments that identify that 90 percent -- once
20	greater of the annual system peak by year.	20	facilities hit 90 percent of their capacity, that they begin
21	Q Is the annual system peak the highest system load hour	21	looking at adding or modifying those facilities for additional
22	for the entire year?	22	capacity.
23	A For each of the 11 years, yes.	23	So the 90 percent is to identify those hours across
24	Q And so for all 8,760 hours in a year, the probability	24	the year in which marginal transmission and distribution costs
25	of that hour being the highest systemwide load is determined?	25	need to be added to the system.

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<p>1 Q So 90 percent is a planning plot for adding or 2 modifying transmission and distribution systems; is that right? 3 A Correct. 4 Q And adding or modifying transmission or distribution 5 systems has a cost associated with it; is that right? 6 A Yes, it does. 7 Q And so the point of looking for hours exceeding 90 8 percent of system peak is to determine which hours may result in 9 or do result in additional system costs; is that right? 10 A The marginal cost study intends to identify those 11 hours across the year that drive the need for additional 12 investment. 13 Q And I asked about costs, and you answered additional 14 investment. 15 Is there a difference in your mind between additional 16 investment and cost? 17 A It was more of just a clarification. It's clear in my 18 mind it's an investment. 19 Q Okay. How does the investment in your mind relate to 20 determining which hours had the highest cost? 21 Which I believe is what you said the cost of service 22 study is looking for for transmission, is what we're talking 23 about right now. 24 How does the investment in your mind connect to the 25 hours of highest cost?</p>	<p>1 A Nevada's marginal cost methodology has been approved 2 for approximately 30 years. The goal of that marginal cost 3 study is to identify those classes who have higher costs or 4 lower costs, and to provide rates that reflect those and to 5 reflect the cost that they impose on the system. 6 We do those calculations on an hourly basis across all 7 8,760 hours of the year, and that is the goal of the POP factor. 8 And those, the results of the marginal cost study in 9 form Statement O for rate design in order to develop rates that 10 are based on costs to reflect rates that provide appropriate 11 price signals to all customer classes. 12 Q So the reason to determine the hours that drive need 13 for investment in the transmission system is to identify those 14 classes that have higher costs or lower costs in order to design 15 rates to get appropriate price signals? 16 A To all customers, yes. 17 Q What do you mean by appropriate price signal? 18 A One that is reflective of cost. 19 Q What do you mean by reflective of cost? 20 A A rate or price should reflect the cost of providing 21 that service to the customer. 22 Q So the goal is to send an appropriate price signal, 23 which is the price of providing a service to the customer? 24 A Yes. 25 Q And the marginal cost study does that for transmission</p>
Page 19	Page 21
<p>1 A They are similar. 2 However, the hours that are identified as having the 3 highest cost do not necessarily mean that additional investment 4 would have to be made. That's more of a planning decision. 5 In the cost of service study we are trying to identify 6 those hours that drive the need for that. 7 Q What's the "that" in your statement? 8 A The investment. 9 Q Are the hours that drive the need for investment the 10 highest cost hours for transmission? 11 A Within the cost study, yes. 12 Q What about outside the cost study? 13 A I believe someone in transmission or distribution 14 planning would have to answer. 15 Q So you don't know? 16 A No. 17 Q Sorry. I should not have asked in a negative. 18 Do you know, outside of the cost of service study, 19 whether -- or what hours drive the need for investment in the 20 transmission system? 21 A I do not. 22 Q What's the purpose of trying to determine the hours 23 that drive the need for investment in the transmission system? 24 A Within the cost study? 25 Q Correct.</p>	<p>1 by identifying which hours have the highest cost, correct? 2 A The marginal cost study does that for transmission, as 3 well as distribution, generation, energy. 4 Q And in this discussion when you say reflecting the 5 cost of providing the service to the customer, you are talking 6 about the marginal cost of providing that service; is that 7 right? 8 A Within the marginal cost study, yes. 9 Q And for purposes of rate-making, right? 10 A Well, the results of the marginal cost study are 11 reconciled to the company's embedded revenue requirement for 12 final rates. 13 Q I appreciate that. 14 My question is, the cost of providing service to the 15 customer that you referred to as being reflective of cost, we're 16 talking about reflective of the marginal cost? 17 A Correct. 18 Q And the marginal cost of transmission is the cost of 19 additional investment in the transmission system, correct? 20 A Yes. Incremental KW capacity, yes. 21 Q And that's driven by hours exceeding 90 percent of the 22 systemwide load, correct? 23 A No. It's driven by those hours that have the highest 24 probability of exceeding 90 percent of the annual system peak. 25 Q Are you familiar with how that incremental cost of</p>

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<p style="text-align: right;">Page 22</p> <p>1 transmission is calculated?</p> <p>2 A Generally, yes.</p> <p>3 Q And can you tell me your understanding?</p> <p>4 A The unit cost of transmission is developed using a</p> <p>5 regression analysis of 20 years of transmission plant data and</p> <p>6 control area peak load to develop a dollar per KW result.</p> <p>7 Q So the 20 years of cost data, are those incremental</p> <p>8 costs for each of the 20 years, or are they total plant</p> <p>9 inservice cost?</p> <p>10 A I believe Mr. Bohman would be the appropriate person</p> <p>11 to respond to that question.</p> <p>12 Q Do you know?</p> <p>13 A I don't remember, no.</p> <p>14 Q What's the point of doing the regression analysis for</p> <p>15 20 years of cost data and 20 years of peak load data?</p> <p>16 A Again, I believe Mr. Bohman would be best asked that</p> <p>17 question.</p> <p>18 Q Do you know?</p> <p>19 A No.</p> <p>20 Q Has there ever been any discussion about the reason</p> <p>21 for doing the regression analysis to determine the incremental</p> <p>22 cost of transmission?</p> <p>23 A Yes.</p> <p>24 Q Who was part of that discussion?</p> <p>25 A It was myself, I believe Mr. Bohman, Miss Walsh,</p>	<p style="text-align: right;">Page 24</p> <p>1 A The main reason the regression analysis was used was</p> <p>2 in order to reflect the Great Recession within the methodology,</p> <p>3 as the previous methodology did not.</p> <p>4 Q How does the regression methodology reflect the Great</p> <p>5 Recession?</p> <p>6 A There is a binary variable within the regression that</p> <p>7 identifies the period of time affected by the Great Recession.</p> <p>8 Q How does that work?</p> <p>9 A The binary variable?</p> <p>10 Q Yes.</p> <p>11 A It's a flag variable within the regression that</p> <p>12 separates out different data points based upon a simple binary</p> <p>13 value of one or zero.</p> <p>14 Q Why is that important to the analysis?</p> <p>15 A Because that affects the underlying results of the</p> <p>16 regression.</p> <p>17 Q Does the regression -- is one of the points of the</p> <p>18 regression analysis to draw a correlation between cost and peak</p> <p>19 system load?</p> <p>20 A That is how the regression is used for the marginal</p> <p>21 cost study are set up, yes.</p> <p>22 Q And that is the purpose of it, for the marginal cost</p> <p>23 study?</p> <p>24 A To come up with a dollar per KW cost of adding</p> <p>25 incremental capacity to the system, yes.</p>
<p style="text-align: right;">Page 23</p> <p>1 Mr. Ghiglieri, Steve Ghiglieri, and Dr. Ed Ives.</p> <p>2 Q Are those all employees of NV Energy?</p> <p>3 A All are current employees except for Dr. Ed Ives.</p> <p>4 Q And who is he employed by?</p> <p>5 A I believe he is retired.</p> <p>6 Q Was he employed by NV Energy?</p> <p>7 A At one time, yes.</p> <p>8 Q At the time of the discussion?</p> <p>9 A I believe so.</p> <p>10 Q How recently was this discussion?</p> <p>11 A The use of the regression methodology was first</p> <p>12 proposed, I believe, by Sierra in its 2010 GRC, and it was</p> <p>13 necessary to put into place because of changes in load</p> <p>14 characteristics from the Great Recession.</p> <p>15 And I believe it's been approved by the commission in</p> <p>16 the 2010 GRC, in Nevada Power's 2011, Sierra's 2013, and Nevada</p> <p>17 Power's 2014 GRC.</p> <p>18 Q Do you remember, from the discussion about using a</p> <p>19 regression analysis, the reason that the company decided to</p> <p>20 propose the use of a regression analysis?</p> <p>21 A The reason I just mentioned was because of the Great</p> <p>22 Recession and changes in load characteristics.</p> <p>23 Q How does the Great Recession and changes in load</p> <p>24 characteristics influence the use of a regression analysis to</p> <p>25 allocate transmission system costs?</p>	<p style="text-align: right;">Page 25</p> <p>1 Q Okay. And is that correlation between adding to</p> <p>2 system capacity and peak load intended to show a causation?</p> <p>3 A No.</p> <p>4 Q In the rate case, there's some discussion of cost</p> <p>5 causation.</p> <p>6 How does the regression analysis relate, if at all, to</p> <p>7 cost causation for transmission service?</p> <p>8 A The unit cost developed from a regression identifies a</p> <p>9 cost, but not a cost causation.</p> <p>10 Q How is cost causation determined for the transmission</p> <p>11 cost?</p> <p>12 A Within the marginal cost study, the cost causation is</p> <p>13 determined by the hourly class loads and the POP cost</p> <p>14 responsibility factor.</p> <p>15 Q So the regression analysis determines a unit cost in</p> <p>16 dollars per kilowatt of peak load, correct?</p> <p>17 A A dollar per KW of capacity across -- that's available</p> <p>18 across all hours of the year.</p> <p>19 Q The regression analysis determines a cost per KW of</p> <p>20 capacity?</p> <p>21 A Yes. It's not dependent on being available in only</p> <p>22 the peak period.</p> <p>23 Q Is system capacity important to the regression</p> <p>24 analysis?</p> <p>25 A I believe Mr. Bohman would better -- would be the one</p>

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<p style="text-align: right;">Page 26</p> <p>1 to better respond to that question.</p> <p>2 Q Do you know the answer?</p> <p>3 A Yes.</p> <p>4 Q Is capacity an input to the regression analysis?</p> <p>5 A No.</p> <p>6 Q How does the regression analysis determine the cost</p> <p>7 per KW of capacity if the system capacity is not an input to the</p> <p>8 analysis?</p> <p>9 A That's the result of the regression analysis.</p> <p>10 Q Why?</p> <p>11 A Because that's what a regression is, the -- where you</p> <p>12 come up with a unit cost of your independent variable relative</p> <p>13 to your dependent.</p> <p>14 Q Okay. And the independent variable is what?</p> <p>15 A I believe Mr. Bohrman would better answer that</p> <p>16 question.</p> <p>17 Q Do you know that answer?</p> <p>18 A I do not.</p> <p>19 Q I thought you told me earlier today that the</p> <p>20 regression analysis was the system transmission -- we're talking</p> <p>21 about transmission right now -- the system transmission cost</p> <p>22 divided by the peak load, systemwide load; is that correct?</p> <p>23 A Can you repeat the question?</p> <p>24 Q Your understanding of the regression analysis for the</p> <p>25 unit cost for transmission is the system transmission cost of 20</p>	<p style="text-align: right;">Page 28</p> <p>1 A No.</p> <p>2 Q What were you referring to?</p> <p>3 A Mr. Bohrman's direct testimony.</p> <p>4 Q And where in Mr. Bohrman's direct testimony were you</p> <p>5 looking?</p> <p>6 A Question nine.</p> <p>7 MR. CRANO: I'm sorry. Is that Mr. Bohrman's direct</p> <p>8 or certificate testimony?</p> <p>9 THE WITNESS: Direct.</p> <p>10 BY MR. BENDER:</p> <p>11 Q So in Mr. Bohrman's direct testimony, question nine,</p> <p>12 why did you look there?</p> <p>13 A The question states, how have the T and B demand</p> <p>14 marginal unit costs been estimated.</p> <p>15 Q Okay.</p> <p>16 A So that's where Mr. Bohrman discusses the development</p> <p>17 of the marginal transmission unit demand cost.</p> <p>18 Q You also said looking at the cost of service study to</p> <p>19 answer the question of what the dependent variable was, correct?</p> <p>20 A I believe so, yes.</p> <p>21 Q Is that in a work paper to Exhibit 4? Work paper one</p> <p>22 in Exhibit 4?</p> <p>23 A Which page?</p> <p>24 Q Go to 33 of 54, table 14.</p> <p>25 A I see that.</p>
<p style="text-align: right;">Page 27</p> <p>1 years of service data divided by the system peak loads over</p> <p>2 those 20 years.</p> <p>3 That was the calculation that was done in the</p> <p>4 regression analysis; is that right?</p> <p>5 A I believe I said Mr. Bohrman was the better one to</p> <p>6 respond to that question.</p> <p>7 Q Okay. Can you respond to it?</p> <p>8 A No, I'm not sure.</p> <p>9 Q You are not sure how the regression analysis is</p> <p>10 conducted?</p> <p>11 A I understand the mechanics of a regression analysis.</p> <p>12 I just cannot remember what was used for the dependent variable.</p> <p>13 Q If we looked at the cost of service study, would that</p> <p>14 answer your question?</p> <p>15 A I believe so.</p> <p>16 (Exhibit 4 marked for identification)</p> <p>17 BY MR. BENDER:</p> <p>18 Q Mr. Pollard, I'm handing you what's been marked as</p> <p>19 Exhibit 4 for your deposition.</p> <p>20 Is that the cost of service study?</p> <p>21 A From the direct filing, yes. Exhibit Bohrman</p> <p>22 Direct-2.</p> <p>23 Q And you were referring to something in front of you.</p> <p>24 Is that your prefiled testimony you were just</p> <p>25 referring to?</p>	<p style="text-align: right;">Page 29</p> <p>1 Q Does that answer your question of what the dependent</p> <p>2 variable was?</p> <p>3 A No, it does not.</p> <p>4 Q Do you see dollar per KW on line 32?</p> <p>5 A I see that.</p> <p>6 Q Is that the unit cost that you were referring to</p> <p>7 earlier?</p> <p>8 A Yes.</p> <p>9 Q And that's determined by the transmission cost divided</p> <p>10 by max peak KW, which is column D of page 33 of 54 on table 14</p> <p>11 in Exhibit 4?</p> <p>12 A As stated on page 12 of Mr. Bohrman's direct</p> <p>13 testimony, transmission HBD and distribution regression models</p> <p>14 use a simple linear specification of Y equals A, plus BX 1, plus</p> <p>15 CX 2, where Y is the dependent variable demand-related plant</p> <p>16 balance in 2017 dollars, X 1 is the independent or explanatory</p> <p>17 variable, the appropriate peak loading KW, and X 2 is a binary</p> <p>18 or dummy independent variable.</p> <p>19 So, yes, the information presented in column C on</p> <p>20 page 33 of 54 is the dependent variable information.</p> <p>21 Q Talk, then, about how the unit cost is applied.</p> <p>22 In the cost of service study, Statement O said that</p> <p>23 each hour is given a value depending on the POP, probability of</p> <p>24 peak, for that hour?</p> <p>25 A Yes.</p>

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<p>1 Q And then those are weighted for each hour?</p> <p>2 A The hourly POP values are multiplied by the loads of</p> <p>3 each class, yes.</p> <p>4 Q And that's loads of each class for each hour?</p> <p>5 A Yes.</p> <p>6 Q What do you mean by load?</p> <p>7 A The hourly class loads.</p> <p>8 Q What do you mean by hourly class loads? What's a</p> <p>9 load?</p> <p>10 A The energy usage of the class within the hour.</p> <p>11 Q So if all the customers in a class are summed -- or if</p> <p>12 all of the customers in a class' hourly usage for an hour are</p> <p>13 summed, then that is the class hourly load?</p> <p>14 A Correct.</p> <p>15 Q That is not how the hourly class load is determined</p> <p>16 for net-metered customers or NEM customers; is that correct?</p> <p>17 A The calculation uses hourly class loads for NEM</p> <p>18 classes, as well as all other classes.</p> <p>19 Q The customers' usage for each hour is not, for NEM</p> <p>20 customers, is not summed to determine that class' hourly load;</p> <p>21 is that correct?</p> <p>22 A No. This NEM customer usage is reflected in the</p> <p>23 hourly class loads used for inputs into the marginal customer.</p> <p>24 Q My question was, are the NEM customers' hourly energy</p> <p>25 usages for all NEM customers summed, and that number, that sum</p>	<p>1 So what did you mean by energy usage for the hour?</p> <p>2 A So excluding NEM customer classes, the company uses</p> <p>3 the total customer energy usage for customers in nonNEM classes.</p> <p>4 Even NEM customers that are included in nonNEM</p> <p>5 classes, their total load is included in the load shape</p> <p>6 development for marginal transmission costs.</p> <p>7 Q And the total usage for those nonNEM class customers</p> <p>8 is determined based on the metered usage or what the company,</p> <p>9 the utility company, is delivering to them?</p> <p>10 A For full requirements customers, yes.</p> <p>11 But for those NEM customers in the nonNEM classes, the</p> <p>12 load shapes were developed with their total load shape of those</p> <p>13 customers. So their energy usage absent generation.</p> <p>14 Q So when you say energy usage absent generation, you</p> <p>15 mean the energy use for the hour, regardless of whether the</p> <p>16 customer is generating some of their energy that's being used or</p> <p>17 the utility company is delivering the energy that's being used?</p> <p>18 A That is correct. Their total energy use.</p> <p>19 Q So the load shape use for NEM class customers starts</p> <p>20 with -- the calculation of that load shift, starts with the</p> <p>21 total usage of all of the NEM class customers.</p> <p>22 MS. ELLIOT: Are you back to transmission load shape</p> <p>23 or --</p> <p>24 MR. BENDER: Yes. We're still on transmission load</p> <p>25 shape.</p>
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<p>1 total of each hour's usage, used in the cost of service study,</p> <p>2 or is the NEM class hourly usage, hourly load, determined a</p> <p>3 different way?</p> <p>4 A That information is used as inputs into the cost study</p> <p>5 or development of cost for NEM customers.</p> <p>6 Q Used as -- I'm sorry. I don't want to interrupt. Go</p> <p>7 ahead.</p> <p>8 A We use different load shapes for different functions</p> <p>9 for that class, as they are partial requirements customers that</p> <p>10 generate a portion of their total energy usage.</p> <p>11 Q We should probably specify when we're talking about</p> <p>12 the NEM customers, we're talking about the residential and small</p> <p>13 general service.</p> <p>14 So it's D 1 NEM and GS 1 NEM, right?</p> <p>15 A The separate NEM classes, yes, that's what I assumed.</p> <p>16 Q Okay. And for those classes, a separate load shape is</p> <p>17 used.</p> <p>18 That's what you said, right?</p> <p>19 A As with any distinct class, yes, included in our cost</p> <p>20 study.</p> <p>21 Q So excluding the NEM classes, the load shape used to</p> <p>22 determine transmission costs for each hour is the sum total of</p> <p>23 the customer's energy usage for that hour?</p> <p>24 A Can you define energy usage of the customer?</p> <p>25 Q That was the term you used.</p>	<p>1 MS. ELLIOT: Okay.</p> <p>2 THE WITNESS: I'm sorry. Can you repeat the question?</p> <p>3 BY MR. BENDER:</p> <p>4 Q For transmission load shape, in the cost of service</p> <p>5 study for NEM class customers, the determination of the load</p> <p>6 shape starts with the customers in the class' total load?</p> <p>7 A That is correct.</p> <p>8 Q And then an adjustment factor is applied to that total</p> <p>9 load, correct?</p> <p>10 A That is correct.</p> <p>11 Q What is that adjustment factor -- what's the purpose</p> <p>12 of that adjustment factor?</p> <p>13 A The adjustment we included in the development of the</p> <p>14 load shape used for marginal transmission costs was a downward</p> <p>15 adjustment that reflected a reduction in NEM customer maximum</p> <p>16 demands per the entire class related to their self-generation.</p> <p>17 This was done in order to recognize some fact of load</p> <p>18 diversity for the NEM class in the determination of marginal</p> <p>19 transmission costs.</p> <p>20 Q Why did you seek to reflect a reduction in NEM</p> <p>21 customer maximum demands for the entire class related to</p> <p>22 self-generation?</p> <p>23 A It was done as a reasonable approach to reflect a</p> <p>24 reduction in the maximum KW demands of the NEM customer classes</p> <p>25 related to their self-generation.</p>

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<p>1 Q Okay. So it's a reasonable approach to reflect</p> <p>2 maximum KW demand reduction.</p> <p>3 Why did you seek to reflect a maximum KW demand</p> <p>4 reduction?</p> <p>5 A That was done to provide a reasonable cost of the NEM</p> <p>6 customer use of the transmission system.</p> <p>7 Perhaps a better word is burden on the transmission</p> <p>8 system.</p> <p>9 Q How does the reduction in maximum demand for the</p> <p>10 entire class relate to the burden of use of the transmission</p> <p>11 system?</p> <p>12 A For that customer class, the difference between the</p> <p>13 two, the total load and the adjusted load that we used in the</p> <p>14 development of marginal transmission costs, reflects a decrease</p> <p>15 in the maximum KW values of all individual NEM customers, and a</p> <p>16 reduction of that -- of the burden that they place on the</p> <p>17 transmission system.</p> <p>18 Q So the demand of the customers on the transmission</p> <p>19 system is the burden you are referring to, their load is the</p> <p>20 burden you are referring to?</p> <p>21 A Their total load, yes.</p> <p>22 Q So does a NEM customer put a burden on the</p> <p>23 transmission system when the customer generates and uses his or</p> <p>24 her own generated electrical energy?</p> <p>25 A It depends on the extent to which the generation</p>	<p>1 reflect the burden that the NEM customers place on the</p> <p>2 transmission system; is that correct?</p> <p>3 A It's intended to reflect a downward adjustment related</p> <p>4 to the NEM generation over the test period that the system</p> <p>5 actually experiences for any reduced maximum KW demands that the</p> <p>6 NEM customers place on the system.</p> <p>7 Q So let's talk about how that adjustment to reflect the</p> <p>8 usage that the customer actually puts on the system is</p> <p>9 calculated.</p> <p>10 If I understand correctly from your testimony, the</p> <p>11 adjustment is calculated based on the ratio between the</p> <p>12 customer -- the class' delivered load shape, or their delivered</p> <p>13 load, compared to the total load.</p> <p>14 Does that -- is my understanding correct?</p> <p>15 A Where is that?</p> <p>16 Q So at page 10 of your testimony, which is Exhibit 2,</p> <p>17 line 10, it says, the total hourly load was reduced by the ratio</p> <p>18 of NEM class noncoincident peaks relative to the load -- the</p> <p>19 total load noncoincident peaks by TOU period.</p> <p>20 Do you see that?</p> <p>21 A I do.</p> <p>22 Q And that's a ratio; is that right?</p> <p>23 A Yes, it is.</p> <p>24 Q Okay. That's a ratio of the NEM class', as a whole,</p> <p>25 noncoincident peak, right?</p>
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<p>1 offsets that customer's usage.</p> <p>2 Q Why? How does it depend on the extent of which the</p> <p>3 customer's generation offsets the usage?</p> <p>4 A It depends on how much their generation is offsetting</p> <p>5 their use.</p> <p>6 Q So if the generation offsets a hundred percent of the</p> <p>7 use, is the customer putting a burden on the transmission</p> <p>8 system?</p> <p>9 A At that moment in time, no.</p> <p>10 Q And if the customer generates half of the electricity</p> <p>11 that they are using, is their burden on the transmission system</p> <p>12 cut in half compared to what it would have been if they had</p> <p>13 generated none for the electricity they were using?</p> <p>14 A I believe at that moment, yes, that would reflect</p> <p>15 that.</p> <p>16 However, it is important to distinguish the burden</p> <p>17 that the customer places on the transmission system and the</p> <p>18 costs put into place for that customer.</p> <p>19 Q Let's talk about the burden first.</p> <p>20 The point of the adjustment to the total load shape is</p> <p>21 intended to reflect the burden that the customers are putting on</p> <p>22 the transmission system, right?</p> <p>23 A Can you repeat the question?</p> <p>24 Q The point of the adjustment made to the total load in</p> <p>25 the transmission load shape for NEM customers is intended to</p>	<p>1 A The ratio of the NEM class noncoincident peaks</p> <p>2 relative to the total load noncoincident peaks by time of use</p> <p>3 period, yes.</p> <p>4 Q So this noncoincident peak is noncoincident to system</p> <p>5 peak.</p> <p>6 That's what noncoincident means in that statement; is</p> <p>7 that correct?</p> <p>8 A That is correct.</p> <p>9 Q Okay.</p> <p>10 A It is the sum of the individual maximum peaks.</p> <p>11 Q By hour?</p> <p>12 A By time of use period.</p> <p>13 Q So if I have a NEM system, and my neighbor has a NEM</p> <p>14 system, are our peaks for each hour summed, or is my peak for</p> <p>15 one hour added to my neighbor's peak and some other hour?</p> <p>16 A So the noncoincident peak is actually based upon</p> <p>17 15-minute information for individual NEM customers. So across</p> <p>18 the entire year by time of use period.</p> <p>19 So a neighbor could have a maximum KW of ten, and that</p> <p>20 would be added to the NEM customer next to them, who perhaps had</p> <p>21 a maximum KW of five.</p> <p>22 Sum those up for the entire class. Those are the</p> <p>23 noncoincident peak values there.</p> <p>24 Q So NEM customer one could have a ten KW peak during a</p> <p>25 15-minute interval, and NEM customer two could have a five KW</p>

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<p style="text-align: right;">Page 38</p> <p>1 peak in some other 15-minute interval, some other day, some 2 other time, and those two are summed for the noncoincident peak? 3 A Yes. Those reflect the maximum KW values that they 4 place on the system. 5 Q And then all of those peaks for all of those 6 individual NEM customers are totaled by time of use period. 7 Is that the next step? 8 A That's correct. 9 Q So even though they do not occur on the same day or 10 the same time, as long as they occurred in the same time of use 11 period, those individual peaks are totaled, summed? 12 A That is correct. To reflect the total burden, the 13 maximum KW that the customer places on the system, for either 14 their total load and their delivered load. 15 Q That's not the total burden that the class puts on the 16 system, correct? 17 A I'm not sure I understand. 18 Q Okay. So those two -- we gave an example of NEM 19 customer one and NEM customer two having peaks at different 20 times. 21 The burden on the transmission system is the load that 22 the class as a whole places during the same time interval? 23 A No. The maximum KW of the individual customers is the 24 maximum burden that those customers place on the system. 25 Q So it's not the burden that the class as a whole is</p>	<p style="text-align: right;">Page 40</p> <p>1 And so the denominator in the ratio is the sum of each 2 individual class -- NEM class customers' peak total load, 3 regardless of when those loads occur, the date or time that 4 those loads occur, as long as they are in the same time of use 5 period? 6 A Yes. The maximum KW of individual NEM customers 7 within that time of use period for the total load. 8 And then the next piece is the delivered load. 9 Q The next piece is the numerator that we already talked 10 about. The delivered load is the numerator? 11 A I believe the delivered load is the numerator, yes. 12 Q And then you come up with the ratio of those 13 individual peaks that happen at different times and different 14 days, but within the same time of use period, to the total load 15 individual peaks that happen at different times on different 16 days, but within the same time of use period, and it gives us a 17 percentage as the ratio; is that right? 18 A Yes. 19 Q Okay. And you say in your testimony on page 10 that 20 this lowered the overall load shape by 6.6 percent from total 21 loads of the D 1 NEM class, and 5.6 percent from the GS 1 NEM 22 class; is that right? 23 A Yes, that's what my testimony says. 24 Q Okay. And is that six percent the average for all 25 time of use periods?</p>
<p style="text-align: right;">Page 39</p> <p>1 placing on the system at any given time? 2 A At any given time, the sum of the customers' energy 3 would be the burden that the class places on the system. 4 Q We just talked about how customer one and customer two 5 may have peak loads at different times, a ten KW peak at one 6 15-minute interval from customer one, a five KW peak from 7 customer number two during some other period of time, maybe on a 8 different day, right? 9 That was the example that we were talking about? 10 A We can assume that they peak on a different day, yes. 11 Q Okay. And so the class peak at any given time doesn't 12 include both of those peak loads simultaneously. It would be 13 whatever the individual class members are using during the same 14 period? 15 A That is correct. And that's why we use the 16 noncoincident peaks and the difference between the total load 17 and the delivered load for the adjustment rather than coincident 18 peak information. 19 Q Walk me through that calculation again. 20 So you are summing all the individual customers' 21 individual peaks, regardless of time or date, as long as they 22 are in the same time of use period, correct? 23 A That is correct. 24 Q And then there's a ratio. So you need to sum a second 25 number, the denominator.</p>	<p style="text-align: right;">Page 41</p> <p>1 A 6.6 percent reflects the decrease in hourly class 2 loads that we use for the marginal transmission costs 3 relative -- or from the total loads for the NEM customers to 4 reflect the reduction in the maximum KW demands of NEM customers 5 from their NEM self-generation. 6 Q Okay. Do you apply -- so let's talk about the D 1 NEM 7 class first. 8 Do you apply the 6.6 percent reduction across all 9 hours to create the adjusted load shape? 10 A No. The D -- the 6.6 percent reduction is in annual 11 sales, and it is just merely the difference in the delivered -- 12 or the adjusted sales of the D 1 NEM class and the total load 13 sales of the D 1 NEM class. 14 The adjustments or the ratios by time of use period 15 are different. 16 Q And so the ratios by time of use period are different. 17 Are they applied -- is each time of used period's 18 ratio applied to the class total load for each separate time of 19 use period? 20 A The time of use periods are separate, yes. 21 MR. BENDER: Let's mark this, and this will help the 22 discussion. 23 (Exhibit 5 marked for identification) 24 BY MR. BENDER: 25 Q And Exhibit 5, which is NV Energy's response to staff</p>

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<p style="text-align: right;">Page 42</p> <p>1 data request 206. I will tell you there is an attachment to the</p> <p>2 first page, which is a spreadsheet. It has two tables on the</p> <p>3 spreadsheet. One has many rows to it, and so we included two</p> <p>4 pages of it as an example, and then the second table to the</p> <p>5 attachment, so that this wasn't hundreds of pages long.</p> <p>6 Do you see that in Exhibit 5?</p> <p>7 A Yes.</p> <p>8 Q So the back page of Exhibit 5 is the calculation of</p> <p>9 the adjustments to total load to create the transmission load</p> <p>10 shape; is that right?</p> <p>11 A I see that.</p> <p>12 Q And you were the responder to this particular data</p> <p>13 request, right?</p> <p>14 A I was.</p> <p>15 Q So you either created or reviewed this last page of</p> <p>16 Exhibit 5; is that fair?</p> <p>17 A Yes.</p> <p>18 Q And the time of use periods you were talking about</p> <p>19 show up as rows on the last page of Exhibit 5 as S-on or summer</p> <p>20 on-peak, S-mid or summer mid peak, S-off or summer off-peak,</p> <p>21 W-on for winter on-peak, W-mid for winter mid peak, and W-off</p> <p>22 for winter off-peak.</p> <p>23 Is that right?</p> <p>24 A Yes.</p> <p>25 Q And there are total KW values for each time of use</p>	<p style="text-align: right;">Page 44</p> <p>1 Q You concluded that this adjustment method was a</p> <p>2 reasonable way to determine the burden that NEM customers place</p> <p>3 on the transmission system; is that right?</p> <p>4 A Correct.</p> <p>5 Q What about this adjustment method do you believe is a</p> <p>6 reasonable way to -- makes it a reasonable way to determine the</p> <p>7 burden on the transmission system?</p> <p>8 A I believe it's reasonable as we start with the total</p> <p>9 load shape, which is what the company installs and stands by for</p> <p>10 in order to serve NEM customers fairly.</p> <p>11 We provided a downward adjustment to reflect and</p> <p>12 reduce -- or any reduction in the burden that they place on the</p> <p>13 transmission system during the test period that we identify as</p> <p>14 between the reduction and the maximum KW demands of the total</p> <p>15 and delivered loads.</p> <p>16 Q Let's back up for a second.</p> <p>17 You said the total load shape is what the company</p> <p>18 installs in order to stand by to meet customer loads; is that</p> <p>19 right?</p> <p>20 A Yes.</p> <p>21 Q Do you understand how the transmission system is</p> <p>22 designed and installed?</p> <p>23 A No.</p> <p>24 Q Then how do you know that the transmission system is</p> <p>25 designed and installed to meet the total load shape?</p>
<p style="text-align: right;">Page 43</p> <p>1 period in the columns for D 1, OD 1, and GS 1; is that right?</p> <p>2 A That is correct.</p> <p>3 Q And the ratio of the total KW to the delivered KW that</p> <p>4 create the ratios that are in the bottom third of the table</p> <p>5 under ratio; is that right?</p> <p>6 A I believe it's delivered divided by total.</p> <p>7 Q Okay. And so the summer on-peak ratio for D 1</p> <p>8 customers shows up as 81.1 percent.</p> <p>9 Do you see that?</p> <p>10 A For the summer on-peak, yes.</p> <p>11 Q And so for summer on-peak total loads, in the NEM</p> <p>12 customer load shape, are those total loads for each hour</p> <p>13 multiplied by 81.1 percent to create the adjusted load shape?</p> <p>14 A Yes.</p> <p>15 Q And then are the D 1 NEM customers' total loads for</p> <p>16 the summer mid-peak multiplied -- all of those hours multiplied</p> <p>17 by 93 percent?</p> <p>18 A Yes.</p> <p>19 Q Are the reductions in total load from self-generation</p> <p>20 in this adjustment, are they weighted at all for which hours</p> <p>21 have higher transmission costs associated with them?</p> <p>22 A At this point, the calculation is done on a time of</p> <p>23 use period basis. The resulting hourly class loads are used in</p> <p>24 the calculation once it gets to that point of multiplying by the</p> <p>25 POP factor.</p>	<p style="text-align: right;">Page 45</p> <p>1 A Based on discussions with transmission planning, they</p> <p>2 have told me that they do not make any changes for NEM customer</p> <p>3 generation, and would -- and plan for facilities to serve them</p> <p>4 as if they had no generation, of which a large majority of NEM</p> <p>5 customers are existing, and those facilities do exist to serve</p> <p>6 their total load prior to them installing generation.</p> <p>7 Q Who are these people in transmission planning that you</p> <p>8 had the discussion with?</p> <p>9 A I believe it was Brian Whalen.</p> <p>10 Q Anyone else?</p> <p>11 A I can't remember for certain.</p> <p>12 Q So no one else that you can recall?</p> <p>13 A I believe it was Mr. Whalen.</p> <p>14 Q And only Mr. Whalen that you can recall?</p> <p>15 A Yes.</p> <p>16 Q Mr. Whalen told you that the company does not make</p> <p>17 changes in the way it designs the transmission system for NEM</p> <p>18 customers; is that what he told you?</p> <p>19 A Yes.</p> <p>20 Q And do you know how the transmission system is</p> <p>21 designed at the outset?</p> <p>22 A I do not.</p> <p>23 Q So when you said that the company does not make</p> <p>24 changes for NEM customers, you do not know what the changes</p> <p>25 would be made from?</p>



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<p style="text-align: right;">Page 46</p> <p>1 A My understanding is the transmission planning group 2 puts in facilities to serve the total load of the customer. I 3 don't know what that entails.</p> <p>4 Q Okay. So total load, as we said, was the load that 5 would exist if customer generation was not providing some of the 6 NEM customers' electricity usage?</p> <p>7 A Absent generation, their total load, yes.</p> <p>8 Q Assuming none of the NEM customer generation exists, 9 and it is producing electricity. That's what you mean by absent 10 generation?</p> <p>11 A Correct.</p> <p>12 Q And so your understanding of the way the company 13 builds an investment transmission system is to provide capacity, 14 assuming that no NEM system exists and is creating electricity?</p> <p>15 A That is my understanding.</p> <p>16 MS. ELLIOT: Can we take a break?</p> <p>17 THE WITNESS: Actually, I could use the restroom.</p> <p>18 MS. ELLIOT: He is starting to squirm.</p> <p>19 MR. BENDER: We can take a break.</p> <p>20 (A recess was taken)</p> <p>21 BY MR. BENDER:</p> <p>22 Q Back on the record.</p> <p>23 Mr. Pollard, before we broke, I had asked if it was 24 your understanding that the company installs an investment 25 transmission system to provide transmission capacity for the</p>	<p style="text-align: right;">Page 48</p> <p>1 NEM generation was appropriate.</p> <p>2 Q Well, if the company did not build its transmission 3 system assuming any load diversity, why did you conclude that 4 recognizing some load diversity was reasonable?</p> <p>5 A It was done as a reasonable approach to reflect the 6 burden that the NEM customers place on the transmission system 7 during the test period.</p> <p>8 Q My question is why is that reasonable.</p> <p>9 A Because it starts with the fact that investment is 10 made for NEM customers based upon the total load.</p> <p>11 However, it acknowledges that some reduction in 12 maximum KW demands of NEM customers does exist during the test 13 period, and so we felt that it was appropriate to include that 14 reduction in their load shape in the development of marginal 15 transmission costs.</p> <p>16 Q What's the relevance of a reduction in load shape to 17 cost of transmission if the transmission system is built 18 assuming no diversity?</p> <p>19 A The relevance is a 6.6 percent reduction for D 1 NEM 20 and a 5.6 percent reduction for GS 1 NEM.</p> <p>21 Q That's the result.</p> <p>22 What's the relevance?</p> <p>23 A I'm not sure I understand the question.</p> <p>24 Q Okay. Let's back up.</p> <p>25 The point of the marginal cost study is to assign</p>
<p style="text-align: right;">Page 47</p> <p>1 amount of capacity that assumes that there are no NEM systems on 2 the system producing electrical energy.</p> <p>3 And your answer was yes, right?</p> <p>4 A That is correct.</p> <p>5 Q And is that understanding -- is your statement that 6 the adjusted transmission load shape that we have been 7 discussing is a reasonable reflection of the burdens that NEM 8 customers place on the transmission system, is that based on 9 your understanding that the company invests in transmission 10 capacity to provide sufficient capacity assuming that there are 11 no NEM systems?</p> <p>12 A My understanding is that the company makes investments 13 in order to meet the total loads of NEM customers absent 14 generation.</p> <p>15 The transmission load shape provides a reasonable 16 downward adjustment that reflects any reduction in the maximum 17 KW burdens of NEM customers -- of the burden that NEM customers 18 place on the transmission system during the test period from 19 their NEM generation.</p> <p>20 Q If the company invests in the transmission system to 21 build sufficient capacity for total loads, assuming no NEM 22 systems and no self-generation offsetting use, why make any 23 adjustment?</p> <p>24 A That is an option. The company thought that some 25 recognition that some load diversity does possibly exist for the</p>	<p style="text-align: right;">Page 49</p> <p>1 costs based on cost causation or responsibility for costs, 2 correct?</p> <p>3 A Correct.</p> <p>4 Q And the transmission costs that we were just talking 5 about, you believe, is the cost to build a transmission system 6 to provide sufficient capacity assuming that there is no NEM 7 system and no NEM system load diversity, correct?</p> <p>8 A That is my understanding.</p> <p>9 Q Okay. So what's the relevance of the adjustments you 10 make to total load if what you are trying to do is determine 11 cost causation by NEM customers on transmission costs?</p> <p>12 A The company is attempting to reflect any reduction in 13 cost causation that occurs during the test period from NEM 14 generation that results in a reduction in the maximum KW demands 15 of the NEM customer classes, or the burden that they place upon 16 the transmission system.</p> <p>17 Q So you are trying to reflect a reduction in cost 18 causation by adjusting the total loads, right?</p> <p>19 A That is correcting.</p> <p>20 Q And it is that reduction in the total load that 21 reflects the burden on the transmission system, and, therefore, 22 the cost causation?</p> <p>23 A During the test period, yes.</p> <p>24 Q And the test period is, for the current rate cases, 25 2017 through '19; is that right?</p>

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<p>1 A No.</p> <p>2 Q What is the test -- oh, sorry.</p> <p>3 The test period that you are talking about is the</p> <p>4 historical data that you used to build the load shape and the</p> <p>5 cost allocation?</p> <p>6 A That's correct.</p> <p>7 Q Okay. And the unit costs we talked about are</p> <p>8 determined by a regression analysis from system peak; is that</p> <p>9 right?</p> <p>10 Versus, then, Mr. Bohrman's Exhibit 2, we talked about</p> <p>11 the page in the work paper containing the regression analysis,</p> <p>12 and there are system transmission costs, and there are peak</p> <p>13 loads, as the two inputs to that analysis, as well as a dummy</p> <p>14 variable?</p> <p>15 A That's correct. I just can't remember what peak they</p> <p>16 used for transmission.</p> <p>17 Q In trying to determine the reduction in cost causation</p> <p>18 from NEM customers because of load diversity, why not use load</p> <p>19 diversity during those hours, during those peaks, that were used</p> <p>20 to determine the unit marginal costs?</p> <p>21 A It's my understanding that the historical information</p> <p>22 is the system level data. Any reduction in the system peak from</p> <p>23 NEM generation would be embedded in that value.</p> <p>24 And I believe that's the same for the load forecast.</p> <p>25 Q So any reduction from the peak -- from total loads is</p>	<p>1 Q The data that were used already reflects the reduction</p> <p>2 from NEM system generation?</p> <p>3 A That is my understanding, yes.</p> <p>4 Q So if one wanted to connect the regression analysis</p> <p>5 calculation to the transmission load shapes, you are saying one</p> <p>6 could use total load instead of delivered load in the regression</p> <p>7 analysis?</p> <p>8 A Correct.</p> <p>9 Q Okay. And another adjustment could be made to the, on</p> <p>10 the other side, to the total load shapes for the specific period</p> <p>11 represented by the delivered load peak using the regression</p> <p>12 analysis?</p> <p>13 A It could.</p> <p>14 However, I believe that would be incorrect, and the</p> <p>15 more appropriate adjustment would be, on the regression</p> <p>16 analysis, to include the NEM generation impact on the system</p> <p>17 peak.</p> <p>18 Q And that would be the system -- it's not actually the</p> <p>19 system peak. It's the system capacity need?</p> <p>20 A It's the system peak.</p> <p>21 Q If one uses total load, it's not an actual peak that</p> <p>22 is experienced on the system, is it?</p> <p>23 A No. I think it would be -- because you would be adding</p> <p>24 back in the NEM generation.</p> <p>25 Q The NEM generation doesn't flow over the transmission</p>
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<p>1 embedded in the system peak load?</p> <p>2 A That's my understanding, yes.</p> <p>3 Q And those are the same system peak loads that were</p> <p>4 used to determine the unit cost for transmission?</p> <p>5 A Yes.</p> <p>6 Q All right. So why not, when one is -- let me back up</p> <p>7 a little bit.</p> <p>8 Those unit costs are what, from the regression</p> <p>9 analysis, are what are used to assign cost causation in the</p> <p>10 rate-making Statement O, correct?</p> <p>11 A The unit cost information, yes.</p> <p>12 Q So why not use the reduction in total load from NEM</p> <p>13 customers, or anyone else, during those peak periods that were</p> <p>14 actually used in the regression analysis?</p> <p>15 A I don't believe that's been considered, but it could</p> <p>16 be an option to -- or a modification to that methodology.</p> <p>17 Q To the transmission adjustment methodology?</p> <p>18 A To the unit cost methodology, the regression analysis.</p> <p>19 Q I thought you said that the regression analysis used</p> <p>20 the delivered load, system peak delivered load.</p> <p>21 A It has used the historical metered system load.</p> <p>22 Q So --</p> <p>23 A So it would -- a modification would have to be made to</p> <p>24 those peak values to reflect the total load, absent any NEM</p> <p>25 generation, which may be appropriate to do in the future.</p>	<p>1 system, does it?</p> <p>2 A Not to my knowledge.</p> <p>3 Q The NEM generation is a reduction to the transmission</p> <p>4 load, right?</p> <p>5 A Yes. And that's the adjustment that we reflect in the</p> <p>6 development of the load shape that we use for NEM customer</p> <p>7 classes in the development of marginal transmission costs.</p> <p>8 Q So the intent is to reflect the reduction in the</p> <p>9 transmission load from NEM generation?</p> <p>10 A The reduction in the burden that NEM customers place</p> <p>11 upon the system within the test period, yes.</p> <p>12 Q And the burden is the load --</p> <p>13 A Yes.</p> <p>14 Q -- when we're talking about the transmission system?</p> <p>15 So the intent of the adjustment is to reflect the</p> <p>16 reduction in load on the transmission system from NEM</p> <p>17 generation?</p> <p>18 MS. ELLIOT: Asked and answered.</p> <p>19 Go ahead.</p> <p>20 THE WITNESS: Yes.</p> <p>21 BY MR. BENDER:</p> <p>22 Q So when one is calculating the cost of the burden,</p> <p>23 through the regression analysis, one could use the reduction in</p> <p>24 transmission load from NEM systems during the hours, the load</p> <p>25 hours that were used in the regression analysis?</p>

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<p>1 A My understanding is that the historical information</p> <p>2 and forecast information already includes that reduction in</p> <p>3 system peak levels related to NEM generation.</p> <p>4 An appropriate adjustment would be to include the NEM</p> <p>5 generation in the system peaks in the calculation of the</p> <p>6 regression.</p> <p>7 Q So that's not done?</p> <p>8 A That is not done.</p> <p>9 Q And your belief that the appropriate adjustment would</p> <p>10 be to use total load in the regression analysis is based on your</p> <p>11 belief that the transmission system is built to a sufficient</p> <p>12 capacity based on, or as a design input, the total load absent</p> <p>13 generation?</p> <p>14 A As much as I have thought about it today during this</p> <p>15 discussion, yes.</p> <p>16 Q And that belief is from discussion with Mr. Whalen and</p> <p>17 no other information?</p> <p>18 A No. I believe the idea of making adjustment to the</p> <p>19 system peaks to reflect NEM generation in the regression</p> <p>20 methodology is based upon our conversation today.</p> <p>21 Q And I asked whether that was because of your belief</p> <p>22 that the system is built based on total load as a design input,</p> <p>23 and your answer is yes?</p> <p>24 A Yes.</p> <p>25 Q And your belief that the system is built for total</p>	<p>1 I see you're looking something up.</p> <p>2 Do you know without referring to something else?</p> <p>3 A No, I do not.</p> <p>4 Q Okay. So you would have to look someplace else to</p> <p>5 know what that unit cost is based on; is that right?</p> <p>6 A I don't want to give you a wrong answer.</p> <p>7 Q I'm not asking you to look it up. I'm asking you for</p> <p>8 what you know. So if you don't know, just tell me that.</p> <p>9 A I'm not sure.</p> <p>10 Q Okay. You discuss in your testimony the distribution</p> <p>11 load shape that is used to allocate the distribution demand</p> <p>12 costs; is that right?</p> <p>13 A I do.</p> <p>14 Q And what is the NEM customer load shape that is used</p> <p>15 to allocate distribution demand costs to NEM customers?</p> <p>16 A The load shape used to develop marginal distribution</p> <p>17 costs for NEM customer classes is the hourly loads of -- well,</p> <p>18 the max of the hourly loads of either the total load or the</p> <p>19 excess generation being sent back to the grid.</p> <p>20 Q So for each hour the company looks at, which is</p> <p>21 greater, the total load, or the excess generation being sent</p> <p>22 back to the grid?</p> <p>23 A Correct.</p> <p>24 Q And that's for the NEM class as a whole?</p> <p>25 A Correct.</p>
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<p>1 load absent generation is based on your discussion with</p> <p>2 Mr. Whalen?</p> <p>3 A Correct.</p> <p>4 Q So the distribution system cost allocation.</p> <p>5 Distribution system costs, the unit costs, are</p> <p>6 developed in a regression analysis similar to the transmission</p> <p>7 regression analysis we have already discussed; is that right?</p> <p>8 A The distribution demand costs, yes. And I believe</p> <p>9 Mr. Bohman is the appropriate person to respond to questions</p> <p>10 regarding that.</p> <p>11 Q You discussed it in your testimony; is that right?</p> <p>12 A Where?</p> <p>13 Q Page 9.</p> <p>14 A The distribution load shape?</p> <p>15 Q Yes.</p> <p>16 A Yes.</p> <p>17 Q Okay. The distribution load shape is applied to the</p> <p>18 demand distribution unit costs developed through the regression</p> <p>19 analysis; is that right?</p> <p>20 A That's correct.</p> <p>21 Q And the regression analysis for distribution load</p> <p>22 shape is based on system peaks, correct?</p> <p>23 A I don't believe so.</p> <p>24 Q What are the inputs to the distribution demand unit</p> <p>25 cost regression analysis?</p>	<p>1 Q And the total load is absent generation; is that</p> <p>2 right?</p> <p>3 A Correct.</p> <p>4 Q So, in effect, it's as if all of the NEM systems are</p> <p>5 off-line or not operating, not producing electricity?</p> <p>6 A For the total load shape, yes.</p> <p>7 Q And that total -- the greater of those two values is</p> <p>8 what allocates the distribution demand cost to NEM customers?</p> <p>9 A The greater of those values is the value used in that</p> <p>10 hour per the load shape, yes.</p> <p>11 Q So for any particular hour, the NEM class is going to</p> <p>12 pay at least equal to -- or based on its total load, unless its</p> <p>13 excess generation during that hour exceeds its total load,</p> <p>14 right?</p> <p>15 A The load that they place on the system, the</p> <p>16 distribution system, will either be the total load, or the</p> <p>17 energy that is being sent back onto the grid, whichever is</p> <p>18 greater.</p> <p>19 Q So the total load sets a floor, and the load shape,</p> <p>20 the costs are allocated to, could be higher, but it's never</p> <p>21 lower than the total load?</p> <p>22 A Yes.</p> <p>23 Q And that floor that they pay, at least, is based on --</p> <p>24 assumes that none of the NEM systems are producing electricity</p> <p>25 during that hour?</p>

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<p style="text-align: right;">Page 58</p> <p>1 A Yes.</p> <p>2 Q Why use total load rather than delivered load for cost</p> <p>3 allocation for demand distribution for a NEM customer?</p> <p>4 A The company installs facilities for customers based</p> <p>5 upon, I believe, their maximum demands, regardless of whether or</p> <p>6 not they have NEM generation.</p> <p>7 And, therefore, the total load shape reflects that</p> <p>8 fact.</p> <p>9 Q When you say max demand, do you mean max customer</p> <p>10 demand, the individual customer's max demand?</p> <p>11 A The maximum demand of each customer, yes.</p> <p>12 Q Of each individual customer?</p> <p>13 A Yes.</p> <p>14 Q So the company designs -- we're talking about</p> <p>15 distribution now -- designs distribution systems to provide</p> <p>16 sufficient capacity for the sum total of each individual</p> <p>17 customer's maximum demand?</p> <p>18 A My understanding is the company installs facilities to</p> <p>19 meet the maximum KW requirements of individual customers for</p> <p>20 distribution facilities.</p> <p>21 Q So the sum of the maximum KW demand of individual</p> <p>22 customers is the input to designing sufficient distribution</p> <p>23 capacity?</p> <p>24 A I think that would depend on what type of distribution</p> <p>25 facility is being looked at.</p>	<p style="text-align: right;">Page 60</p> <p>1 you are saying each customer's individual noncoincident peak</p> <p>2 added together?</p> <p>3 A For planning purposes and installation of facilities,</p> <p>4 I believe they look at individual customer information and don't</p> <p>5 consider the class of a customer necessarily, or look at the sum</p> <p>6 aggregation of all customers within a class.</p> <p>7 That is something that we use for cost of service and</p> <p>8 rate design.</p> <p>9 Q So in designing a distribution system, you believe</p> <p>10 they, and I assume "they" is the company?</p> <p>11 A Distribution design or planning, yes.</p> <p>12 Q So the distribution designers and planners look at</p> <p>13 each individual's peak electricity demand?</p> <p>14 A That is my understanding.</p> <p>15 Q And that system planners do not look at what customer</p> <p>16 class that customer is in.</p> <p>17 That's what you said, correct?</p> <p>18 A That is my understanding. But I'm definitely not an</p> <p>19 engineer, and I would defer to them.</p> <p>20 Q Okay. We're talking about what your understanding is.</p> <p>21 And your understanding is also that in designing</p> <p>22 distribution systems, the planners/designs also look at the peak</p> <p>23 use of the individual customer and not the coincident peaks of</p> <p>24 the class?</p> <p>25 A That, I'm not sure of.</p>
<p style="text-align: right;">Page 59</p> <p>1 Q Which distribution facilities are designed in order to</p> <p>2 provide sufficient capacity for the sum total of each individual</p> <p>3 customer's maximum demand?</p> <p>4 A I'm not sure I understand sum total.</p> <p>5 Q Adding together to reach a total.</p> <p>6 A For the class?</p> <p>7 Q Well, I asked if the company installs distribution</p> <p>8 facilities to provide sufficient capacity to meet the sum total</p> <p>9 of each individual's maximum demand.</p> <p>10 Meaning, each individual's maximum demand on the</p> <p>11 system, regardless of when it happens, is added together to</p> <p>12 reach a total KW value, and that KW value is used as a design</p> <p>13 input to designing distribution. Okay?</p> <p>14 A I don't believe so.</p> <p>15 Q Well, your answer was you think it depends on what</p> <p>16 type of distribution facility is being looked at, right?</p> <p>17 A Yes.</p> <p>18 Q Okay. Do you believe any distribution facilities are</p> <p>19 built in order to have sufficient capacity to meet the total of</p> <p>20 each customer's noncoincident peak demand?</p> <p>21 A Yes.</p> <p>22 Q Which facilities are built to have that?</p> <p>23 A My understanding is that all distribution facilities</p> <p>24 are designed to meet the maximum customer demands.</p> <p>25 Q And when you say to meet the maximum customer demands,</p>	<p style="text-align: right;">Page 61</p> <p>1 Q Do you know which distribution facilities, if any, are</p> <p>2 designed in order to meet a class-wide or multiple customer</p> <p>3 coincident peak rather than an individual customer's</p> <p>4 noncoincident peak?</p> <p>5 A I believe it would vary by customer to customer, so I</p> <p>6 don't have a definitive answer, no.</p> <p>7 Q There are no categories of distribution system</p> <p>8 components that we can say are designed for coincident peak of</p> <p>9 all customers served by that piece of equipment?</p> <p>10 A It would depend on the type of customer. For example,</p> <p>11 a large casino may have dedicated substations that serve just</p> <p>12 those customers.</p> <p>13 Q Let's talk about distribution systems serving D 1 NEM</p> <p>14 and GS 1 NEM customers.</p> <p>15 Are there any distribution system components serving</p> <p>16 those customers where the design is intended to provide capacity</p> <p>17 for the coincident peak on that piece of equipment from all of</p> <p>18 the customers being served by that equipment?</p> <p>19 A I don't know.</p> <p>20 Q Do you know, for D 1 NEM and GS 1 NEM customers, which</p> <p>21 pieces of equipment serving those customers are designed for</p> <p>22 coincident peak on the piece of equipment as opposed to the</p> <p>23 maximum noncoincident peak of each individual customer?</p> <p>24 A I do not.</p> <p>25 Q So when you said your understanding is the company</p>

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<p style="text-align: right;">Page 62</p> <p>1 installs facilities based on the maximum demands, regardless of</p> <p>2 NEM generation, which facilities are you referring to?</p> <p>3 A My understanding is that the distribution facilities</p> <p>4 are designed, in general, to meet the maximum KW demands of --</p> <p>5 that customers place on the system.</p> <p>6 I don't know how coincident demands fit into that</p> <p>7 picture.</p> <p>8 Q And when you said -- I think we went through this.</p> <p>9 When you say based on the maximum demands the customer</p> <p>10 places on the system, we're talking about each individual</p> <p>11 customer's maximum demand?</p> <p>12 A Correct.</p> <p>13 Q And it's that basis for your belief that the greater</p> <p>14 of total load or excess generation load is appropriate for</p> <p>15 allocating costs to NEM customers?</p> <p>16 A I believe the total load is an appropriate starting</p> <p>17 point, yes.</p> <p>18 Q That was not my question.</p> <p>19 Is it your belief that the total load is the</p> <p>20 appropriate starting place based on your understanding that the</p> <p>21 company designs and installs distribution facilities based on</p> <p>22 individual customer's peak demand?</p> <p>23 A Yes.</p> <p>24 Q Is it your belief that the excess generation should be</p> <p>25 used to allocate costs when it exceeds total load based on an</p>	<p style="text-align: right;">Page 64</p> <p>1 Q And you believe that that energy that is sent back to</p> <p>2 the grid and that is not used on-site is a burden, puts a burden</p> <p>3 on the system?</p> <p>4 A It's a use or burden on the system, yes.</p> <p>5 Q What do you mean by system?</p> <p>6 A On the distribution system.</p> <p>7 Q Which components, if any, are used by NEM customers to</p> <p>8 send excess generation back to the system?</p> <p>9 A I would imagine it would go through the line extension</p> <p>10 feeder to neighbors.</p> <p>11 Q It goes through the line extension feeder to</p> <p>12 neighbors.</p> <p>13 So it travels out the customer's line drop and</p> <p>14 through -- I guess it could go to the immediate neighbor, and</p> <p>15 then down that neighbor's line drop, right?</p> <p>16 A Conceptually, yeah.</p> <p>17 Q Okay. And those individual line drops, those are</p> <p>18 covered by the Rule 9 cost, right?</p> <p>19 A Yes, the line extensions.</p> <p>20 Q So in that instance, none of the distribution system</p> <p>21 that's covered by the distribution demand regression analysis is</p> <p>22 being used?</p> <p>23 A Those are separate costs identified in the marginal</p> <p>24 cost study.</p> <p>25 Q All right. So when I'm sending excess energy out of</p>
<p style="text-align: right;">Page 63</p> <p>1 understanding of how the company designs and installs</p> <p>2 distribution facilities?</p> <p>3 A No.</p> <p>4 Q What is your belief that excess generation should be</p> <p>5 used to allocate costs when it exceeds total load based on?</p> <p>6 A That opinion is based on the fact that when excess</p> <p>7 generation exceeds the total load, NEM customers are placing</p> <p>8 more energy -- a higher energy burden on the distribution system</p> <p>9 than they would have otherwise placed had they not installed</p> <p>10 their generation.</p> <p>11 So I believe it's appropriate to reflect that and</p> <p>12 their use of the distribution system in the development of</p> <p>13 marginal distribution costs for those classes.</p> <p>14 Q How does one measure burden on a distribution system?</p> <p>15 A The way I am using it is the energy usage that is</p> <p>16 either delivered or sent back onto the grid.</p> <p>17 Q Energy sent back onto the grid is not energy usage by</p> <p>18 the NEM customer, though, right?</p> <p>19 A No. It's excess energy sent back to the grid, as the</p> <p>20 NEM customer is not using that energy.</p> <p>21 Q So it's fair to say, what you just explained, how you</p> <p>22 mean burden, are you meaning to say that by burden you mean the</p> <p>23 energy flow?</p> <p>24 A I generally mean the energy or generation that they</p> <p>25 send back to the grid, that they do not use on-site.</p>	<p style="text-align: right;">Page 65</p> <p>1 my NEM system up my line drop, and then it goes back down my</p> <p>2 neighbor's line drop, the only part of the, quote, unquote,</p> <p>3 system that's being used are ones that are covered by the Rule 9</p> <p>4 cost allocation, and not any part of the distribution system</p> <p>5 that's covered by the distribution demand cost components,</p> <p>6 right?</p> <p>7 A I think it would vary depending the setup of customer</p> <p>8 to customer.</p> <p>9 But conceptually, what we were talking about, I think</p> <p>10 it would flow up the line extension through the feeder, which</p> <p>11 would be part of the distribution system, and then perhaps down</p> <p>12 the line to a neighboring customer and through their line</p> <p>13 extension.</p> <p>14 Q It depends on where their neighbor is, right?</p> <p>15 A It depends on the configuration, yes.</p> <p>16 Q So in an instance where multiple neighbors are served</p> <p>17 by the same line transformer, the electricity could flow from --</p> <p>18 the excess electricity could flow from one neighbor to the other</p> <p>19 without ever flowing back onto the feeder?</p> <p>20 A Potentially.</p> <p>21 Q Okay. So when that happens, none of the flow is over</p> <p>22 a distribution demand component, or component that's included in</p> <p>23 the distribution demand cost calculation, correct?</p> <p>24 A In that limited scenario, yes.</p> <p>25 Q And in another scenario it may go through the</p>

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<p style="text-align: right;">Page 66</p> <p>1 transformer and onto the feeder, right?</p> <p>2 A It could.</p> <p>3 Q And then from the feeder through another line</p> <p>4 transformer and to a neighbor, right?</p> <p>5 A I believe that's valid.</p> <p>6 Q Okay. The length of feeder that's being used in</p> <p>7 that -- in those scenarios depends on configuration of the</p> <p>8 system and how much electricity we're talking about, right?</p> <p>9 A I think that makes sense.</p> <p>10 Q Okay. But the company is not aware of the flow of</p> <p>11 excess energy from NEM customers traveling far enough on the</p> <p>12 feeder to backfeed a substation, right?</p> <p>13 A To my knowledge, the company does not have any</p> <p>14 information on NEM generation being backfed onto a substation.</p> <p>15 Q So the extent of the trans -- or the distribution</p> <p>16 system that's used by NEM customers to send their excess</p> <p>17 electricity is limited to feeders and line transformers?</p> <p>18 A I think so, yes.</p> <p>19 Q Okay. And when I send a kilowatt of electricity out</p> <p>20 of my NEM system, which is excess energy, and it travels down</p> <p>21 the feeder to my neighbor, and he or she uses one KW, we'll say</p> <p>22 it's for an hour, one KW hour of my excess electricity, that's</p> <p>23 not an additional load on the feeder, right?</p> <p>24 A It would have to be provided either way in order to</p> <p>25 serve that customer's load. It is an incremental KWH of energy</p>	<p style="text-align: right;">Page 68</p> <p>1 back to the grid from NEM customers is greater than what would</p> <p>2 have been provided to them absent their generation.</p> <p>3 That is what I view as the incremental piece.</p> <p>4 Q Well, we're talking about the incremental burden on</p> <p>5 the distribution system right now, right?</p> <p>6 A So if there is excess generation for NEM customers</p> <p>7 that is greater than their total load, I view that as an</p> <p>8 additional burden on the distribution system, even if it just</p> <p>9 goes to the neighbor to serve their KWH of energy.</p> <p>10 Q The KWH that's excess energy, beyond the NEM</p> <p>11 customer's total load, flows across the feeder and is used by</p> <p>12 the neighbor, right?</p> <p>13 A Correct.</p> <p>14 Q A nearby customer, right?</p> <p>15 A Yes.</p> <p>16 Q Do you agree with that?</p> <p>17 A Okay. I can agree with that.</p> <p>18 Q That KWH that's flowing to the nearby customer was</p> <p>19 going to flow over that feeder, regardless of the NEM customer's</p> <p>20 excess generation?</p> <p>21 A But it was not necessarily going to flow from the NEM</p> <p>22 customer through their facilities.</p> <p>23 Q No. But it was going to flow on that feeder?</p> <p>24 A Conceptually, yes.</p> <p>25 Q And so it's the same amount of load on the feeder,</p>
<p style="text-align: right;">Page 67</p> <p>1 coming from the NEM customer onto the distribution system.</p> <p>2 Q But it's not incremental to what the system would have</p> <p>3 seen even without the NEM generation, right?</p> <p>4 A It can be in some cases. That's why the load shape</p> <p>5 for the marginal distribution cost uses the higher of either the</p> <p>6 total load or the excess generation.</p> <p>7 Q When you say incremental, you mean cumulative, right,</p> <p>8 additional?</p> <p>9 A The excess energy is the energy that the NEM customer</p> <p>10 sends back to the grid --</p> <p>11 Q Right.</p> <p>12 A -- that they do not use on-site.</p> <p>13 Q Okay. And my question -- you said that is incremental</p> <p>14 to the neighbor's KWH of electricity use, right?</p> <p>15 A It can be, yes.</p> <p>16 Q And by incremental, you mean additional?</p> <p>17 A Yes, it can be.</p> <p>18 Q Yes, you mean additional?</p> <p>19 A Yes.</p> <p>20 Q And so I send one KWH out of my system, it goes across</p> <p>21 the feeder.</p> <p>22 That is an additional KWH to the KWH that my neighbor</p> <p>23 is pulling off of the feeder and using, so that in that section</p> <p>24 of feeder there is two kilowatts traveling?</p> <p>25 A In certain instances, the amount of excess energy sent</p>	<p style="text-align: right;">Page 69</p> <p>1 whether the NEM customer provides it, or the Valmi plant</p> <p>2 provides it, right?</p> <p>3 A For one KWH of energy, I can see that conceptually</p> <p>4 being the case.</p> <p>5 However, again, there are periods of time in which the</p> <p>6 excess generation for NEM customers is greater than their total</p> <p>7 load.</p> <p>8 So I would imagine the burden being placed on a feeder</p> <p>9 of that energy being sent back to the grid is greater, in some</p> <p>10 points of time, than if they had never installed generation.</p> <p>11 Q That piece of the feeder that is seeing the greater</p> <p>12 burden is limited to the length that it takes for other</p> <p>13 customers to use that generation?</p> <p>14 A Conceptually, I think that's valid.</p> <p>15 Q And so the burden is measured -- is the burden</p> <p>16 measured as the net flow, the net cumulative additional flow of</p> <p>17 electricity over that limited section of the feeder, compared to</p> <p>18 what it would have been without the net-metering customer?</p> <p>19 A I believe there would be instances where the excess</p> <p>20 energy would offset.</p> <p>21 However, I also view instances where the excess energy</p> <p>22 would be greater and would cause an additional burden on the</p> <p>23 distribution system.</p> <p>24 Q If we would measure that additional burden, it's the</p> <p>25 net -- it's the amount by which it's greater, the NEM generation</p>

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<p style="text-align: right;">Page 70</p> <p>1 flow is greater than the flow that would be going over that 2 feeder to a neighbor anyway?</p> <p>3 A And that is the burden that we identify in the 4 development of the distribution costs by including the higher of 5 the total load or the excess generation.</p> <p>6 Q You include the entire excess generation?</p> <p>7 A We include in the load shape those hours in which the 8 excess generation is greater than the total load.</p> <p>9 Q And you use the entire excess generation value in 10 those hours?</p> <p>11 A No. It's the higher of the two.</p> <p>12 Q Sorry. What I --</p> <p>13 A So to the extent that the excess generation is greater 14 than the total load, that would be reflected in the load shape. 15 So if the total class load, the total load is a 16 thousand, and the sum of the excess generation is 1,001, we 17 would use 1,001 instead of 1,000 for that hour.</p> <p>18 Q The total load's a thousand and the excess generation 19 is 1,001, so the NEM customers are producing 2,001 in that hour, 20 right?</p> <p>21 A No. They are sending back 1,001.</p> <p>22 Q They are sending back -- they are sending back -- the 23 excess is an excess of their total load?</p> <p>24 A I believe it would be the 1,001, but I can't remember 25 for sure at this point.</p>	<p style="text-align: right;">Page 72</p> <p>1 So if total generation was 1,001, the excess 2 generation would be one. The value used in the load shape would 3 be 1,001.</p> <p>4 Q So the load shape assumes that 1,001 KWs are flowing 5 as the burden, even though only one KW is actually flowing, and 6 it's a -- it's flowing out from the NEM customer onto the 7 feeder?</p> <p>8 A Because the first step is the development of 9 distribution facilities to meet the total load of the NEM 10 customer. The incremental piece of the excess generation is to 11 identify the additional burden that NEM customers place on the 12 system from their generation.</p> <p>13 Q So the excess that's actually going out onto the grid, 14 the feeder, is one KW in the scenario that we're talking about, 15 correct?</p> <p>16 A That is correct.</p> <p>17 Q And that's being used by a neighbor, say, a 18 residential home, neighbor. Okay?</p> <p>19 Are you with me so far?</p> <p>20 A I am.</p> <p>21 Q Okay. The feeder flow is the same number of KWs that 22 would be flowing on that feeder even if NEM customers did not 23 use it?</p> <p>24 A That's incorrect.</p> <p>25 Q How is it incorrect?</p>
<p style="text-align: right;">Page 71</p> <p>1 Q So I'm trying to get this straight. 2 If the NEM customer class is using a thousand KW, and 3 the NEM class as a whole is producing 1,001 KW with their NEM 4 system --</p> <p>5 MS. ELLIOT: In addition to their usage?</p> <p>6 MR. BENDER: No. That's the raw production. Okay?</p> <p>7 MS. ELLIOT: Okay.</p> <p>8 BY MR. BENDER:</p> <p>9 Q The total load would be a thousand in that situation, 10 correct?</p> <p>11 A Assuming the total load is a thousand.</p> <p>12 Q Because their entire usage would be their load, right?</p> <p>13 A Right.</p> <p>14 Q Okay. And they're producing 1,001.</p> <p>15 Is the excess energy that's used in the load shape 16 1,001 or is it one?</p> <p>17 A I believe it would be 1,001.</p> <p>18 Q Even though those customers are consuming a thousand 19 of those 1,001 kilowatts production, the load shape assumes that 20 they are putting 1,001 KWH on the grid?</p> <p>21 A You said excess generation of 1,001.</p> <p>22 Q No. I said generation of 1,001.</p> <p>23 And then I said, is the excess generation used for the 24 load shape 1,001, or is it one?</p> <p>25 A I misunderstood.</p>	<p style="text-align: right;">Page 73</p> <p>1 A Your total load on the distribution system, absent any 2 generation, would be a thousand KWH for that group of customers 3 in our example.</p> <p>4 Once they install generation, the total burden is 5 1,001.</p> <p>6 Q So I'm --</p> <p>7 A So there is a larger burden on the distribution system 8 because of the NEM generation under that example.</p> <p>9 Q We're talking about the feeder first, okay? We're 10 talking about the feeder portion. That's the extent to which we 11 already agreed that NEM generation, excess generation hits.</p> <p>12 On that feeder, if you have, say, a thousand NEM 13 customers, and they are all generating and using, and so their 14 load is a thousand, and they are generating 1,001, the amount 15 that is sent out onto the feeder by all of those NEM customers 16 is one KW, right?</p> <p>17 A That value of one is the additional burden that they 18 are placing on the distribution system, had they not installed 19 generation.</p> <p>20 Q You keep saying -- I just want to talk about flow of 21 electricity first.</p> <p>22 A I'm not an engineer, so I'm not willing to discuss 23 that.</p> <p>24 Q Okay. But you do make assumptions when you determine 25 where the burdens are, right?</p>

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<p>1 A Related to cost of service and rate design, yes.</p> <p>2 Q And the basis of that is the electrical system, right?</p> <p>3 A Yes.</p> <p>4 Q All right. And it's built for certain flows, right,</p> <p>5 flows of energy?</p> <p>6 A Yes.</p> <p>7 Q And you told me that the burdens placed on the system</p> <p>8 are the flows of electricity?</p> <p>9 A Correct.</p> <p>10 Q Okay. And so the flow of electricity in my scenario</p> <p>11 from the NEM customers that actually hits the distribution</p> <p>12 system, the distribution demand components of the distribution</p> <p>13 system, is one KW?</p> <p>14 A The one KW is the additional burden placed on the</p> <p>15 distribution system from the NEM generation.</p> <p>16 Q That is not cumulative to what the neighbor's demand</p> <p>17 is, though, correct?</p> <p>18 So if the neighbor, nonNEM customer, is using that one</p> <p>19 KW, that one KW is going to flow down that feeder regardless of</p> <p>20 the NEM customer?</p> <p>21 A Regardless of which customer uses it, it's still an</p> <p>22 additional KWH of energy that is placed on the distribution</p> <p>23 system by the NEM customer.</p> <p>24 Q So it's not in addition to what would have been on</p> <p>25 that feeder to feed the neighbor one KW load, regardless of the</p>	<p>1 So the distribution on the system, the additional one</p> <p>2 KW we're talking about, that burden exists only on the feeder,</p> <p>3 right?</p> <p>4 A Conceptually, like we said before, yes.</p> <p>5 Q So the excess energy flows are not placing a burden on</p> <p>6 substations, high-voltage distribution lines, or any of the</p> <p>7 other high-voltage distribution systems, correct?</p> <p>8 A That's what we said, yes.</p> <p>9 Q Is the excess energy -- those periods where excess</p> <p>10 energy exceeds total load, is the excess energy, the classified</p> <p>11 excess energy value used to allocate just the feeder costs, or</p> <p>12 is it used to allocate all of the distribution system costs?</p> <p>13 A That would be a question for Mr. Bohman.</p> <p>14 Q You don't know?</p> <p>15 A I don't.</p> <p>16 Q We do agree that the burden from the NEM customers is</p> <p>17 limited to that feeder?</p> <p>18 A Once again, I'm not an engineer, but conceptually,</p> <p>19 that's what we've agreed upon.</p> <p>20 Q Talking about those periods when the total load</p> <p>21 exceeds excess generation. So that the total load is used to</p> <p>22 allocate costs to those hours.</p> <p>23 Are you with me so far?</p> <p>24 A I am.</p> <p>25 Q Okay. So for those hours, total load is used, which</p>
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<p>1 NEM customer?</p> <p>2 A In that scenario, that KWH is incremental to the</p> <p>3 energy that would have been placed on that feeder because of the</p> <p>4 additional KWH of generation from a NEM customer.</p> <p>5 Q So if I'm a NEM customer, the nonNEM customer would</p> <p>6 not exist on that feeder and have a one KW demand?</p> <p>7 MS. ELLIOT: I know that you are not getting the</p> <p>8 answer that you want, but you asked the same question 4 or 5</p> <p>9 times.</p> <p>10 MR. BENDER: Okay. The objection is noted.</p> <p>11 THE WITNESS: Can you restate the question?</p> <p>12 MR. BENDER: Can you read back the question?</p> <p>13 Record read by the reporter as follows:</p> <p>14 "QUESTION: So if I'm a NEM customer, the nonNEM</p> <p>15 customer would not exist on that feeder and have a one KW</p> <p>16 demand?"</p> <p>17 THE WITNESS: I personally think that it is somewhat</p> <p>18 irrelevant of where that neighboring customer is.</p> <p>19 The NEM customer places a -- sends back excess energy</p> <p>20 beyond what their total load would have been, which means they</p> <p>21 use the distribution system -- or place an additional burden on</p> <p>22 the distribution system because of their NEM generation.</p> <p>23 BY MR. BENDER:</p> <p>24 Q I'm not sure I'm getting an answer, but I think that's</p> <p>25 all you are going to tell me.</p>	<p>1 is the load assuming no NEM customer generation is operating,</p> <p>2 correct?</p> <p>3 A That is correct.</p> <p>4 Q And you believe that is the appropriate load to use</p> <p>5 because you believe the distribution system is sized to that</p> <p>6 amount of capacity?</p> <p>7 A I do.</p> <p>8 Q Okay. And when you said the distribution is sized to</p> <p>9 that amount of capacity, we're talking about the entire</p> <p>10 distribution system, high-voltage distribution all the way down</p> <p>11 to line transformer?</p> <p>12 A I believe that the distribution facilities are sized</p> <p>13 to meet -- or do not consider NEM generation in their design,</p> <p>14 and, therefore, the total load is the appropriate load shape to</p> <p>15 use.</p> <p>16 Q And that belief in how the distribution system is</p> <p>17 designed and sized is based on your knowledge or based on</p> <p>18 information from somewhere else?</p> <p>19 A Discussions with distribution planning.</p> <p>20 Q Who did you talk to at distribution planning who gave</p> <p>21 you that information?</p> <p>22 A I believe that was Joe Sinobio.</p> <p>23 Q Anyone else?</p> <p>24 A I don't believe so.</p> <p>25 Q So Joe Sinobio told you that the distribution system</p>



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<p style="text-align: right;">Page 78</p> <p>1 is sized based on customers' total load, which assumes no</p> <p>2 customer generation?</p> <p>3 A I believe it was more along the lines that they do not</p> <p>4 take into account NEM generation in the design of the</p> <p>5 facilities.</p> <p>6 Q Do you know what they do take into account?</p> <p>7 A My very general understanding is the maximum demands</p> <p>8 of the customer, but I know it's a lot more complicated than</p> <p>9 that.</p> <p>10 Q Okay. And what do you mean by maximum demands of the</p> <p>11 customer? Do you mean the noncoincident peak of all customers</p> <p>12 served by the equipment?</p> <p>13 A I believe so.</p> <p>14 Q And that's your understanding of the design of the</p> <p>15 entire distribution system?</p> <p>16 A My understanding is, is that is the case for</p> <p>17 facilities closer to the customer. That is, as you move farther</p> <p>18 away, that a more coincident demand is taken into account.</p> <p>19 Q Do you know which facilities are considered closest to</p> <p>20 the customer where noncoincident peak of individual customers is</p> <p>21 used to size equipment?</p> <p>22 A Those would be, I believe, things like panels, line</p> <p>23 extensions.</p> <p>24 Q Do panels mean the load center at the customer?</p> <p>25 A Correct. Their connection to the system.</p>	<p style="text-align: right;">Page 80</p> <p>1 A Correct.</p> <p>2 Q And those could be to serve -- instead of building out</p> <p>3 new transmission, or distribution areas, it could be to upgrade,</p> <p>4 provide additional capacity to existing distribution service</p> <p>5 areas?</p> <p>6 A I believe so.</p> <p>7 Q And in those cases, the distribution system is sized</p> <p>8 by coincident peaks, right?</p> <p>9 A I don't know.</p> <p>10 Q Your testimony about the appropriateness of using</p> <p>11 total load shape in those hours where it did exceed excess</p> <p>12 generation values, that that is the appropriate load shape to</p> <p>13 use, is based on your understanding of how the distribution</p> <p>14 system is sized and designed based on your conversation with</p> <p>15 Mr. Sinobio, correct?</p> <p>16 A In part.</p> <p>17 Q Is it based on anything else?</p> <p>18 A The use of the total load shape in the development of</p> <p>19 the marginal distribution costs is based upon the discussions</p> <p>20 that we have had with distribution planning, where they have</p> <p>21 stated that they do not account for a NEM generation in the</p> <p>22 design of distribution facilities for NEM customers.</p> <p>23 The second piece is the excess generation, and the</p> <p>24 excess generation piece is included as an additional burden on</p> <p>25 the distribution system when it exceeds the total load of the</p>
<p style="text-align: right;">Page 79</p> <p>1 Q And their line extension?</p> <p>2 A Correct. Perhaps even farther up, as a transformer</p> <p>3 feeder.</p> <p>4 Q Okay. And farther off, so talking about a</p> <p>5 neighborhood substation, high-voltage distribution lines, are</p> <p>6 those sized by coincident peak loads on that equipment?</p> <p>7 A I don't know that.</p> <p>8 Q Do you know at all?</p> <p>9 A No.</p> <p>10 Q If the equipment is sized by coincident peak, is that</p> <p>11 coincident peak the measured coincident peak?</p> <p>12 MS. ELLIOT: If you know.</p> <p>13 BY MR. BENDER:</p> <p>14 Q If you know.</p> <p>15 A I don't know.</p> <p>16 Q So you don't know actually whether those coincident</p> <p>17 peaks are measured delivered coincident peaks, or whether they</p> <p>18 are calculated total load coincident peaks, correct?</p> <p>19 A I think during the planning phase you wouldn't have</p> <p>20 any measured information, so you would have to go off</p> <p>21 assumptions based upon the loads that you were given of</p> <p>22 projects.</p> <p>23 I don't believe it would be measured, no.</p> <p>24 Q There are also capacity -- or capital improvements to</p> <p>25 distribution systems, right?</p>	<p style="text-align: right;">Page 81</p> <p>1 NEM customer.</p> <p>2 Q Okay. I appreciate that qualification. My question</p> <p>3 was intending to exclude those periods of excess generation</p> <p>4 hours. Okay?</p> <p>5 I'm just talking about the hours when total load is</p> <p>6 being used as the load shape for the cost of service study.</p> <p>7 Okay?</p> <p>8 Are you with me on that?</p> <p>9 A Okay.</p> <p>10 Q Okay. So those hours -- your testimony that the total</p> <p>11 load is the appropriate load shape to use is based upon, as you</p> <p>12 said, your discussion with system planners, right?</p> <p>13 When I asked who previously, you told me Mr. Sinobio,</p> <p>14 and you couldn't remember anyone else, right?</p> <p>15 A Correct.</p> <p>16 Q The question is, your testimony that the total load is</p> <p>17 the appropriate load shape is based on your conversation with</p> <p>18 Mr. Sinobio?</p> <p>19 A That they do not take into account NEM generation in</p> <p>20 the design of distribution facilities, correct.</p> <p>21 Q Is there any effort to do a probabilistic, the</p> <p>22 probability of all NEM customer generation being unavailable at</p> <p>23 the same time as part of the cost of service study?</p> <p>24 A What do you mean by probabilistic?</p> <p>25 Q How probable it is that all NEM generation is</p>

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<p style="text-align: right;">Page 82</p> <p>1 off-line, not available, at the same time.</p> <p>2 A Currently, that occurs every day, right, when the sun</p> <p>3 sets?</p> <p>4 So do you mean that off-line?</p> <p>5 Q Well, I mean each -- so is there a probability of</p> <p>6 termination for each hour or each time of use period that all</p> <p>7 NEM generation is off-line?</p> <p>8 I understand your point that when the sun sets that</p> <p>9 the generation is off-line, but I understood the cost of service</p> <p>10 to be based on hourly values.</p> <p>11 A That is correct. And the load shapes used in this</p> <p>12 cost of service study are for the test period that reflect the</p> <p>13 load characteristics of NEM customers during that time.</p> <p>14 To the extent that new generation was producing or not</p> <p>15 producing due to weather or other items, those are reflected in</p> <p>16 the load shapes.</p> <p>17 Q Which load shapes?</p> <p>18 A The NEM class load shapes.</p> <p>19 Q Are they reflected in the total load shapes?</p> <p>20 A To an extent, usage characteristics are, yes.</p> <p>21 Q But usage characteristics isn't what we were talking</p> <p>22 about. We were talking about generation characteristics, right?</p> <p>23 A The generation would not be.</p> <p>24 Q So generation characteristics are in the load shape</p> <p>25 only if one uses the delivered load shape, right?</p>	<p style="text-align: right;">Page 84</p> <p>1 time for the hourly load shapes, and you said, well, the load</p> <p>2 shapes use test year data.</p> <p>3 So to the extent that they were unavailable, that's</p> <p>4 reflected in the data, right?</p> <p>5 A Correct.</p> <p>6 Q And you said, so if you use the load shapes, that</p> <p>7 probability is in the data already, right?</p> <p>8 And we had a discussion of which load shapes we were</p> <p>9 talking about, right?</p> <p>10 A Correct.</p> <p>11 Q And we agreed that it is in the load data only if in</p> <p>12 the delivered and excess energy load shapes, right?</p> <p>13 A Correct.</p> <p>14 Q And the availability or unavailability of NEM</p> <p>15 generation is not reflected -- the probability of NEM generation</p> <p>16 being available or unavailable is not reflected if one looks at</p> <p>17 only the total load, load shape?</p> <p>18 A That is correct. But that is not what we do.</p> <p>19 Q What do you not do?</p> <p>20 A Ignore the variability of generation, as you suggest.</p> <p>21 Q How do you use the variability of generation in</p> <p>22 creating a distribution load shape?</p> <p>23 A To the extent that the NEM generation places an</p> <p>24 incremental burden on the distribution system from their excess</p> <p>25 generation, that information is included in the load shape.</p>
<p style="text-align: right;">Page 83</p> <p>1 A No.</p> <p>2 Q Why not?</p> <p>3 A Because there are situations in which NEM customers</p> <p>4 send energy back onto the grid, and so the excess energy load</p> <p>5 shapes reflect that piece.</p> <p>6 Q Okay. So the probability of NEM generation being</p> <p>7 off-line in any particular hour is only recognized by the load</p> <p>8 shape if one uses the delivered load shape or the excess energy</p> <p>9 load shape?</p> <p>10 A And generation.</p> <p>11 Q What do you mean by "and generation"? I thought we</p> <p>12 were talking about generation.</p> <p>13 The generation and its availability or unavailability</p> <p>14 is reflected in the test year data if one uses the delivered</p> <p>15 load shape or the excess energy load shape?</p> <p>16 A Yes.</p> <p>17 Q And it's not reflected if one uses the total load</p> <p>18 shape?</p> <p>19 A For marginal distribution costs, correct.</p> <p>20 Q What do you mean by that?</p> <p>21 A For marginal distribution costs, we use the total load</p> <p>22 shape.</p> <p>23 Q My question was about whether there is -- one of my</p> <p>24 questions was about whether there is any effort to determine the</p> <p>25 probability of all NEM generation being off-line at the same</p>	<p style="text-align: right;">Page 85</p> <p>1 Q So only to the extent it increases the load?</p> <p>2 A Correct.</p> <p>3 Q There's no effort to determine the variability of</p> <p>4 generation of NEM customers to the extent it may decrease the</p> <p>5 actual loads on the system?</p> <p>6 A Currently, the company has no evidence that NEM</p> <p>7 generation causes a decrease to distribution facilities.</p> <p>8 And for the cost of service in rate design, we reflect</p> <p>9 the fact that distribution planning does not make -- does not</p> <p>10 take into account NEM generation in the design of their</p> <p>11 facilities.</p> <p>12 Q So my question was about the actual loads on the</p> <p>13 system.</p> <p>14 Is there an effort to use generation availability of</p> <p>15 NEM customers to determine the actual loads placed on the</p> <p>16 utility system in the distribution of cost allocations?</p> <p>17 A The development of the marginal distribution costs</p> <p>18 reflects the fact that distribution planning does not take into</p> <p>19 account the NEM generation when designing facilities.</p> <p>20 To the extent that NEM customers do not use those</p> <p>21 facilities, those facilities sit idle and are not used. Those</p> <p>22 facilities aren't removed because a NEM customer installs</p> <p>23 generation. Those facilities were still put into place to serve</p> <p>24 those customers.</p> <p>25 Q Those facilities are not removed if customers reduce</p>

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<p style="text-align: right;">Page 86</p> <p>1 their usage either, are they?</p> <p>2 A No.</p> <p>3 Q So if residential customers install a higher SEER</p> <p>4 value air conditioner, they reduce their loads on the system,</p> <p>5 right?</p> <p>6 A Correct.</p> <p>7 Q But for the nonNEM customer, their actual load on the</p> <p>8 system is used to assign those distribution costs, right?</p> <p>9 A That is correct. As the installation of an efficient</p> <p>10 appliance would reduce usage, there's -- NEM customers don't</p> <p>11 necessarily reduce their usage because of adding generation. In</p> <p>12 some instances, they increase it.</p> <p>13 And the company stands by to serve that load whenever</p> <p>14 their generation isn't meeting their needs.</p> <p>15 Q The company stands by to serve every all-requirement</p> <p>16 customers' load, right?</p> <p>17 A The company stands by to serve all customers.</p> <p>18 Q That's not a difference between NEM customers and</p> <p>19 nonNEM customers, right?</p> <p>20 A That is correct.</p> <p>21 Q And the distribution system, you believe, is built for</p> <p>22 the peak demand of each customer, right?</p> <p>23 A That's my understanding.</p> <p>24 Q All right. So a customer who reduces his or her usage</p> <p>25 through air conditioner -- or turning off the air conditioner</p>	<p style="text-align: right;">Page 88</p> <p>1 unique cost to NEM customers?</p> <p>2 A No, it is not. And that is why we use the total load</p> <p>3 for full-requirements customers, as well as NEM customers in</p> <p>4 nonNEM classes.</p> <p>5 Q It's not a difference in service. It's just a</p> <p>6 difference in how that service is allocated to NEM and nonNEM</p> <p>7 customers?</p> <p>8 A Is that a question?</p> <p>9 Q Yes.</p> <p>10 A I'm not sure I understand.</p> <p>11 Q Having sufficient capacity and standing by in order to</p> <p>12 serve an all-requirements customer's total load at any time is</p> <p>13 not a difference between NEM and nonNEM customers.</p> <p>14 That's an obligation the utility has to all of those</p> <p>15 all-requirements customers, right?</p> <p>16 A Correct.</p> <p>17 Q The difference is just in how those costs are</p> <p>18 allocated between NEM and nonNEM classes, correct?</p> <p>19 A I don't understand the difference in allocation.</p> <p>20 Q A nonNEM class is allocated based on the actual loads</p> <p>21 they place on the system, right?</p> <p>22 A The total loads, yes.</p> <p>23 Q Which is the same as the delivered loads for those</p> <p>24 classes, correct?</p> <p>25 A Same thing, yes.</p>
<p style="text-align: right;">Page 87</p> <p>1 for the summer, that customer is assigned distribution costs</p> <p>2 based on actual usage of -- actual load on the distribution</p> <p>3 system for nonNEM customers, right?</p> <p>4 A To the extent that the reduced load is reflected in</p> <p>5 rates, yes.</p> <p>6 Q Okay. And even though that customer may turn their</p> <p>7 air conditioner back on at any time, and the utility has to</p> <p>8 stand by in order to serve that load, and the distribution</p> <p>9 system was built to serve that load, the nonNEM customer is</p> <p>10 assigned less of the distribution cost because of that reduction</p> <p>11 in actual load on the system?</p> <p>12 A Correct.</p> <p>13 Q Okay. But the NEM customer who reduces the actual</p> <p>14 load on the system is charged for the total load, correct?</p> <p>15 A That is correct. To reflect the standby nature of the</p> <p>16 facilities that the company has installed to serve their total</p> <p>17 load when their generation is not meeting their needs.</p> <p>18 Q It's the same equipment that the company installs to</p> <p>19 meet the air-conditioner-turning-off customer in order to meet</p> <p>20 that customer's total load, should he or she decide to turn</p> <p>21 their air conditioner back on?</p> <p>22 A Just as if a NEM customer turned off their air</p> <p>23 conditioner, yes.</p> <p>24 Q So it's the standing -- having sufficient distribution</p> <p>25 system in order to meet a customer's load at any time is not a</p>	<p style="text-align: right;">Page 89</p> <p>1 Q Okay. And the NEM customer is charged based on the</p> <p>2 total load they would put on the system if their generation was</p> <p>3 not operating, correct?</p> <p>4 A That is correct.</p> <p>5 Q And that's not the same as the actual load flowing on</p> <p>6 the system in that hour to serve that customer, right?</p> <p>7 A That is the energy that they are using. A portion of</p> <p>8 that may be provided by their own generation.</p> <p>9 However, the company stands by for that total load</p> <p>10 when their generation stops producing. So there is a standby</p> <p>11 nature for NEM customers that does not exist for</p> <p>12 full-requirements customers.</p> <p>13 Q What's the difference?</p> <p>14 A The difference between?</p> <p>15 Q What's the difference in service between the, quote,</p> <p>16 standby service that you just referred to for a NEM customer,</p> <p>17 and the service that the utility provides for all-use</p> <p>18 requirements customers who may increase their usage?</p> <p>19 A The difference is the energy that is offset by the</p> <p>20 on-site generation is what the company stands by to provide,</p> <p>21 whereas the deliveries from the company are the deliveries from</p> <p>22 the company.</p> <p>23 Q That's how you quantify it, right? The amount of</p> <p>24 electricity that is self-provided is how you quantify that</p> <p>25 standby service?</p>

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<p>1 A Correct.</p> <p>2 Q But what's the difference in the actual service, in</p> <p>3 what the company is doing for the customer?</p> <p>4 A I don't think there is a difference.</p> <p>5 Q Okay.</p> <p>6 MS. ELLIOT: Can you give me any indication as to when</p> <p>7 you want to take a lunch break?</p> <p>8 MR. BENDER: Now. How is that for an indication?</p> <p>9 MS. ELLIOT: That's an indication.</p> <p>10 MR. BENDER: That works. We can break right now.</p> <p>11 (A lunch recess was taken)</p> <p>12 BY MR. BENDER:</p> <p>13 Q Okay. Go back on the record.</p> <p>14 Before we broke, we were talking about some standby</p> <p>15 service.</p> <p>16 There's also specific standby rates for larger nonNEM</p> <p>17 customers that you reference both in your testimony and in</p> <p>18 Statement O.</p> <p>19 I think it's SSR rates; is that right?</p> <p>20 A There are SSR and LSR rates, yes.</p> <p>21 Q Can we turn in Statement O, which is Exhibit 3, if you</p> <p>22 still have that in front of you, to -- it would be page 23 of</p> <p>23 work paper one. It's about this far through the document.</p> <p>24 A Calculation of standby diversity factor?</p> <p>25 Q Yeah.</p>	<p>1 over a three-year period.</p> <p>2 Those values are compared to the contract demands,</p> <p>3 which are typically the nameplate capacities of their</p> <p>4 generations -- generation systems. Excuse me.</p> <p>5 A max percent of contract demand is then calculated.</p> <p>6 Those are used as -- a three-year average is developed from that</p> <p>7 information.</p> <p>8 Those are then weighted by transmission and generation</p> <p>9 demand costs to come up with a weighted average, and then that</p> <p>10 is used to calculate the overall weighted average diversity</p> <p>11 factor, shown on L 21, of 28 percent.</p> <p>12 Q And that 28 percent is multiplied by the demand charge</p> <p>13 to determine how much is a monthly reservation charge?</p> <p>14 Let me rephrase that.</p> <p>15 It splits the demand charge by the amount that's</p> <p>16 applied to the nameplate capacity or contract versus the amount</p> <p>17 that's variable based on actual load?</p> <p>18 A Yes.</p> <p>19 Q And in column D, page 23 of 26, it says, max</p> <p>20 coincident demand.</p> <p>21 Is that the coincident demand of all standby</p> <p>22 customers?</p> <p>23 A Yes.</p> <p>24 Q Okay. So the company looks at the demand, measured</p> <p>25 demand data for all of the standby customers for each hour, and</p>
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<p>1 Is that the calculation of the -- what goes into the</p> <p>2 SSR and, I guess, LSR rates?</p> <p>3 A This is a piece of the rate design for standby</p> <p>4 classes. This is a calculation of the diversity factor which is</p> <p>5 used to split the demand charge between a backup and a</p> <p>6 reservation component.</p> <p>7 And the demand rate is the demand rate of the</p> <p>8 otherwise applicable schedule.</p> <p>9 Q Okay. So there's a diversity factor that's</p> <p>10 calculated, and that factor is applied to the demand charge that</p> <p>11 applies to whatever grade class the customer is in?</p> <p>12 A Correct.</p> <p>13 Q And it splits between a standby charge based on</p> <p>14 diversity factor, and then whatever the difference is, the</p> <p>15 remaining piece of the demand charge is charged to the customer</p> <p>16 based on actual usage?</p> <p>17 A Essentially, the reservation charge is multiplied by</p> <p>18 their contract demand, and the other piece is charged for their</p> <p>19 supplemental demand.</p> <p>20 Q And what is the contract demand, is that the amount --</p> <p>21 the nameplate capacity of the customer's own generation?</p> <p>22 A Typically, yes.</p> <p>23 Q So how is the diversity factor calculated?</p> <p>24 A They are shown on this page. You have the maximum</p> <p>25 coincident demands by time of use period for standby customers</p>	<p>1 finds the hour where the sum total demand of all of those</p> <p>2 customers is the highest?</p> <p>3 A Let's check here. I believe it is the maximum</p> <p>4 coincident demand of each customer in a given hour.</p> <p>5 Q So the maximum coincident of all the customers in a</p> <p>6 given hour is found for each time of use period; is that right?</p> <p>7 A Correct.</p> <p>8 Q So row 12, column D, that is the maximum coincident</p> <p>9 demand of all of the standby customers during a specific hour</p> <p>10 that occurs during the summer on-peak time of use period in</p> <p>11 2013?</p> <p>12 A Correct.</p> <p>13 Q And then in column E, that's the cumulative total of</p> <p>14 all of the contracted demand, which is more or less the</p> <p>15 nameplate capacity -- cumulative nameplate capacity of the</p> <p>16 generation owned by all of the standby customers?</p> <p>17 A That is correct.</p> <p>18 Q And if one divides the max coincident by the contract</p> <p>19 demand or nameplate capacity of all of the customers, all the</p> <p>20 standby customers, you get 37 percent for that row 12?</p> <p>21 A That is correct.</p> <p>22 Q And then that's done for each time of use period for</p> <p>23 each of three years, right?</p> <p>24 A That is correct.</p> <p>25 Q And then you said that those time of use periods are</p>

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<p style="text-align: right;">Page 94</p> <p>1 weighted by demand costs.</p> <p>2 What do you mean by weighted by demand costs?</p> <p>3 A So in columns H and I is the three-year average</p> <p>4 period. You see that the overall average is 31.4 percent.</p> <p>5 Those percentages are then used and weighted by the</p> <p>6 marginal transmission and generation revenues by time of use</p> <p>7 period to get a weighted average of total T and G.</p> <p>8 That information is then used to calculate the 28</p> <p>9 percent.</p> <p>10 Q Okay. I see the three-year averages in column I.</p> <p>11 And then I see the marginal T and G revenues in</p> <p>12 columns J, K, and L.</p> <p>13 That's where those are; is that right?</p> <p>14 A Correct.</p> <p>15 Q Where do the marginal T and G revenues in each of</p> <p>16 those cells in columns J, K, L, rows 12 to 17, where do those</p> <p>17 come from?</p> <p>18 A Those are a result of the marginal cost study.</p> <p>19 Q All right. So the marginal cost study assigns those</p> <p>20 values to those different time of use periods; is that right?</p> <p>21 A That is what they develop, yes. That's what the cost</p> <p>22 study develops.</p> <p>23 Q So for the transmission column, the POP values are</p> <p>24 applied to transmission costs, and that calculation comes up</p> <p>25 with these values for each time of use period for transmission?</p>	<p style="text-align: right;">Page 96</p> <p>1 Q And then the -- then I see how each end use period has</p> <p>2 a weighted average of total T and G.</p> <p>3 And then the 28 percent is 28 percent of what? Is it</p> <p>4 the weighted average total T and G divided by total T and G?</p> <p>5 A Correct.</p> <p>6 Q So those periods that have higher costs associated</p> <p>7 with them are weighted more in developing the diversity factor</p> <p>8 for standby customers than those periods that have a lower</p> <p>9 marginal cost?</p> <p>10 A For that piece, yes.</p> <p>11 Q Well, it's not -- 28 percent doesn't represent</p> <p>12 the -- strike that.</p> <p>13 So the customer, then, who has standby rates pay 28</p> <p>14 percent of their demand charge multiplied by the nameplate of</p> <p>15 their generation every month?</p> <p>16 Let me get you to look at page 10 of the Statement O.</p> <p>17 A Yes. So on that page it shows the reservation charge</p> <p>18 calculation to get to those rates are multiplying the otherwise</p> <p>19 applicable schedules demand rates by the 28 percent.</p> <p>20 Q So reservation demand charges are based on their</p> <p>21 nameplate capacity, and then the backup service, variable G and</p> <p>22 T, is based on their actual measured demand?</p> <p>23 A That is correct.</p> <p>24 Q And so the difference between this diversity analysis</p> <p>25 for standby and the one that we talked about before for NEM</p>
<p style="text-align: right;">Page 95</p> <p>1 A Well, the result of the marginal cost study are these</p> <p>2 values by time of use periods.</p> <p>3 Q The POP value for each hour multiplied by the -- well,</p> <p>4 their share -- well, how are the transmission T and G revenues</p> <p>5 determined by time of use?</p> <p>6 It's the probability of peak, the unit cost, and then</p> <p>7 some classes' share of the cost, right?</p> <p>8 A On an hourly basis is the unit cost, times the POP</p> <p>9 factor for transmission, times the hourly class loads, times the</p> <p>10 rescaling factor, done for each class in each hour.</p> <p>11 Q So --</p> <p>12 A The sum of all of those would be that result.</p> <p>13 Q What I'm trying to figure out is what classes are</p> <p>14 you -- any of classes that have a standby customer in them?</p> <p>15 A Standby customers are not included in the marginal</p> <p>16 cost study, as their rates are based on the otherwise applicable</p> <p>17 class.</p> <p>18 Q They are not included, or they are not a separate</p> <p>19 class?</p> <p>20 A They are not included.</p> <p>21 Q Okay. How is the marginal T and G revenue used to</p> <p>22 weight? You just multiply the, for example, the summer on-peak</p> <p>23 percentage by the total T and G revenues and come up with a</p> <p>24 value for that time of use period?</p> <p>25 A Correct.</p>	<p style="text-align: right;">Page 97</p> <p>1 customers' transmission load includes the fact that the large</p> <p>2 standby rate customers calculate the diversity based on their</p> <p>3 coincident use compared to their cumulative nameplate capacity,</p> <p>4 right?</p> <p>5 A Well, their coincident use and cumulative nameplate</p> <p>6 capacity are used in the diversity factor calculation.</p> <p>7 Q And for NEM customers, for the transmission diversity</p> <p>8 factor calculation, you use each customer's -- each individual</p> <p>9 NEM customer's noncoincident demand?</p> <p>10 A That's correct.</p> <p>11 Q And instead of dividing it by the nameplate capacity,</p> <p>12 you divide it by their total demand for each -- each customer's</p> <p>13 total load for each hour -- well, the peak total load.</p> <p>14 Each customer's peak total load?</p> <p>15 A By time of use period, yes.</p> <p>16 Q The NEM diversity factor does not include a weighting</p> <p>17 W-E-I-G-H-T-I-N-G, based on the relative cost of transmission</p> <p>18 and time of use period, does it?</p> <p>19 A Yes, it does.</p> <p>20 Q How?</p> <p>21 A It done on an hourly basis, and the adjustment adjusts</p> <p>22 the hourly loads of the class. So all hours across the year are</p> <p>23 considered, and to the extent that those are adjusted, then each</p> <p>24 hour has an adjustment for that difference.</p> <p>25 Q So the diversity factor is determined for each hour</p>

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<p style="text-align: right;">Page 98</p> <p>1 for NEM customers?</p> <p>2 A That's a way to look at it, yes.</p> <p>3 Q And the diversity factor that's applied to each hour</p> <p>4 is calculated for each hour?</p> <p>5 A It's calculated on a time of use basis, but applied to</p> <p>6 every hour.</p> <p>7 Q And the large standby rates, the diversity factor is</p> <p>8 used to calculate a standby reservation charge that is applied</p> <p>9 to the cost, the demand charge that is determined from a large</p> <p>10 group that excludes the standby customers; is that right?</p> <p>11 A The standby rates are based on the otherwise</p> <p>12 applicable class schedules, which reflect customers --</p> <p>13 full-requirements customers without generation. They are</p> <p>14 full-requirements customers.</p> <p>15 The breakout of the demand charge is to reflect the</p> <p>16 difference between the coincident demands placed on the system</p> <p>17 and the contract demands for the standby customers.</p> <p>18 Q The diversity factor is applied to a rate that's</p> <p>19 developed based on a load shape for an all requirements class?</p> <p>20 A Correct, as if those customers were full-requirements</p> <p>21 customers.</p> <p>22 Q And for the NEM customer transmission load shape</p> <p>23 diversity factor, that's a diversity factor that's applied to</p> <p>24 the NEM customer-specific load shape?</p> <p>25 A That is correct.</p>	<p style="text-align: right;">Page 100</p> <p>1 any, from the large standby customers are connected -- or</p> <p>2 collected through their facilities charges; is that right?</p> <p>3 A And basic service charge, meter charge, HBD, yes.</p> <p>4 Q We're talking about customers who are large and have</p> <p>5 dedicated distribution or take service out of transmission</p> <p>6 voltage?</p> <p>7 A Well, you said distribution charges, so --</p> <p>8 Q I understand.</p> <p>9 These customers are large, right, in this nonNEM</p> <p>10 standby?</p> <p>11 A They can be.</p> <p>12 Q And the company is proposing to eliminate the small</p> <p>13 class standby charge, right?</p> <p>14 A Correct.</p> <p>15 Q These will be larger customers if that proposal is</p> <p>16 accepted?</p> <p>17 A Larger, yes.</p> <p>18 Q I also asked about two new rates the company is</p> <p>19 proposing. You cover that, in part, in your testimony.</p> <p>20 CPP and TBU rate options?</p> <p>21 A PD.</p> <p>22 Q Sorry?</p> <p>23 A PDU options.</p> <p>24 Q PDU options?</p> <p>25 A Right.</p>
<p style="text-align: right;">Page 99</p> <p>1 MS. ELLIOT: For the record, can we find out who is</p> <p>2 adding onto the call?</p> <p>3 MR. BENDER: Yes. Could we get people on the phone to</p> <p>4 identify yourself?</p> <p>5 MR. DIEFENBACH: Sure. This is Eli Diefenbach from</p> <p>6 SolarCity.</p> <p>7 MS. GRIFFIN: Sarah Griffin.</p> <p>8 MR. GILLIAM: Rick Gilliam from Vote Solar.</p> <p>9 MR. BENDER: The three of you. Anyone else?</p> <p>10 BY MR. BENDER:</p> <p>11 Q All right. So that's -- there is another difference</p> <p>12 between how the diversity factor is applied for large standby</p> <p>13 customers and for the transmission piece of NEM customers, which</p> <p>14 is, for large standby customers, the diversity factor is applied</p> <p>15 to distribution, transmission and generation; is that right?</p> <p>16 A Yes.</p> <p>17 Q Okay. So the customers with large -- the larger</p> <p>18 customers with -- who are partial-requirements customers, get a</p> <p>19 benefit of a diversity factor for distribution systems, right?</p> <p>20 A I apologize. It was just transmission, and generation</p> <p>21 are split out from the diversity factor.</p> <p>22 Q So in the --</p> <p>23 A So standby customers do not get a benefit of that</p> <p>24 piece for distribution charges.</p> <p>25 Q How are the -- the distribution charges, if there are</p>	<p style="text-align: right;">Page 101</p> <p>1 Q We asked in discovery why NEM customers are not being</p> <p>2 offered those optimal rates, and you responded to that.</p> <p>3 Do you recall that?</p> <p>4 A I remember the data response. I don't remember who</p> <p>5 the responder was.</p> <p>6 MR. BENDER: Okay. Can we mark these?</p> <p>7 (Exhibits 6-7 marked for identification)</p> <p>8 BY MR. BENDER:</p> <p>9 Q I'm handing you what's been marked as Exhibit 6, which</p> <p>10 is the company's response to Vote Solar data request 1-36, and</p> <p>11 for the record, Exhibit 7, which is the response to Vote Solar</p> <p>12 1-37.</p> <p>13 You are identified as the responder on both of those;</p> <p>14 is that correct?</p> <p>15 A Yes, I am.</p> <p>16 Q And those were asking why the NEM customers were not</p> <p>17 being offered the ability to sign up for the PDU and CPP option?</p> <p>18 A That is correct.</p> <p>19 Q If I understand your response to these, you are</p> <p>20 saying, and correct me if this is wrong, you are saying that the</p> <p>21 CPP and PDU offerings are intended to reduce intra, with an A,</p> <p>22 intraclass subsidy; is that right?</p> <p>23 A That is correct.</p> <p>24 Q And the intraclass subsidy results when customers with</p> <p>25 low on-peak usage pay the same rates as customers with high</p>

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<p style="text-align: right;">Page 102</p> <p>1 on-peak usage?</p> <p>2 A Lower than average off-peak usage relative to</p> <p>3 customers who have higher on-peak usage relative to the average,</p> <p>4 yes.</p> <p>5 Q And you also said the reason why there is nothing</p> <p>6 offered to NEM customers is because those customers do not pay</p> <p>7 their cost based rates, which is an inter, T-E-R, class subsidy,</p> <p>8 right?</p> <p>9 A Yeah.</p> <p>10 Q So do I understand -- help me with this.</p> <p>11 Why -- even if one accepts there is an interclass</p> <p>12 subsidy, which not everyone accepts, but if one does, what about</p> <p>13 that makes a rate intending to prevent intraclass subsidies from</p> <p>14 being available?</p> <p>15 A First, I believe the commission has made it clear that</p> <p>16 there is an interclass subsidy from current NEM rates that all</p> <p>17 other customers pay for.</p> <p>18 The reason that these additional rate offerings are</p> <p>19 not offered, or were not proposed to be offered to NEM customers</p> <p>20 are their rates are still not based at -- or are not at</p> <p>21 cost-based levels, and, therefore, all other customers are</p> <p>22 subsidizing them.</p> <p>23 And, therefore, it was determined that any additional</p> <p>24 rate offerings that might increase or confound those existing</p> <p>25 subsidies was not appropriate at this time.</p>	<p style="text-align: right;">Page 104</p> <p>1 order to determine the rates under those optional offerings, are</p> <p>2 based on the proposed flat rates, which have the interclass</p> <p>3 subsidy embedded in them.</p> <p>4 Q And you have to start with a cost-based -- or base</p> <p>5 rate in order to eliminate an intraclass subsidy?</p> <p>6 A That's the better way to do it, I think.</p> <p>7 Q So it's not a benefit to NEM customers to eliminate an</p> <p>8 intraclass subsidy, even if it's only a partial resolution.</p> <p>9 You are still sending a price signal about their use</p> <p>10 relative to peak, even if the base rate is not yet at a</p> <p>11 cost-based rate?</p> <p>12 A Yes. But if those NEM customers are not paying their</p> <p>13 costs and are receiving a subsidy from other classes, then I</p> <p>14 think it's inappropriate for them to receive an additional</p> <p>15 benefit from other NEM customers.</p> <p>16 Q And eliminating intraclass subsidies and get a</p> <p>17 benefit?</p> <p>18 A It is a benefit.</p> <p>19 Q So it's your opinion, then, policy basis, that if one</p> <p>20 is receiving an interclass subsidy, one should not also receive</p> <p>21 the benefit of eliminating an intraclass or reducing the</p> <p>22 intraclass subsidy?</p> <p>23 A To the extent that that could be accomplished, I would</p> <p>24 say that that would be a benefit.</p> <p>25 However, with an existing interclass subsidy, I think</p>
<p style="text-align: right;">Page 103</p> <p>1 Q How can a rate that is intended to prevent intraclass</p> <p>2 subsidies, this is just subsidies between one NEM customer and</p> <p>3 another NEM customer, how can that exacerbate an interclass</p> <p>4 subsidy?</p> <p>5 A If those rates are not based on costs, and are not set</p> <p>6 on costs, then there are distortions in the price signals sent</p> <p>7 to customers.</p> <p>8 And, therefore, your base of where you start for an</p> <p>9 additional rate offering is -- includes some distortion in the</p> <p>10 price that will affect customers even within the same class.</p> <p>11 Q We're talking about two different potential</p> <p>12 distortions. One is the interclass distortion, that NEM</p> <p>13 customers are not paying their cost-based worth.</p> <p>14 So that's one distortion, right?</p> <p>15 A Right.</p> <p>16 Q And then there is another distortion, which is high</p> <p>17 on-peak use customers relative to class, compared to low on-peak</p> <p>18 use customers compared to class average.</p> <p>19 That's another distortion, right?</p> <p>20 A Correct.</p> <p>21 Q So we're talking about two separate distortions.</p> <p>22 And how is fixing one of the distortions for NEM</p> <p>23 customers by offering them a CPP or PDU rate inappropriate</p> <p>24 because there may be some other separate distortion?</p> <p>25 A The issue is, is the base that you start with, in</p>	<p style="text-align: right;">Page 105</p> <p>1 there is more issues that would complicate an additional rate</p> <p>2 offering and limit the benefit to all customers.</p> <p>3 Q Have you done any analysis to support that belief?</p> <p>4 A No.</p> <p>5 Q Let's talk about this subsidy.</p> <p>6 One of the things you calculate in Statement O, is</p> <p>7 that right, is the NEM class subsidy?</p> <p>8 A Yes.</p> <p>9 Q And where is that in Statement O, which is Exhibit 3?</p> <p>10 Is it on page 6?</p> <p>11 A Yes. That is a NEM subsidy calculation page that</p> <p>12 identifies the bill print compliance item.</p> <p>13 Q And there's also a calculation of it in the work</p> <p>14 paper; is that right?</p> <p>15 A A calculation of the NEM class rates and revenues is</p> <p>16 on page 14 of 26 of work paper one for the flat rate NEM</p> <p>17 classes.</p> <p>18 Q You also calculate a subsidy for irrigation customers;</p> <p>19 is that right?</p> <p>20 A That's correct.</p> <p>21 Q And where is that subsidy calculation?</p> <p>22 A It's identified on page 4 of Statement O.</p> <p>23 Q Where is that found on page 4? What's the total</p> <p>24 amount of the subsidy?</p> <p>25 A In column -- or in cell H 30, it identifies</p>

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<p>1 \$4.287 million.</p> <p>2 Q So that value is in thousands?</p> <p>3 A Yes.</p> <p>4 Q So it's 4.28 million for irrigation customers, and</p> <p>5 793,993 from NEM customers; is that right?</p> <p>6 A What did you say for NEM?</p> <p>7 Q 793,993.</p> <p>8 A Yes.</p> <p>9 Q There's also a line in here on page 9 of 26 of work</p> <p>10 paper one.</p> <p>11 What is this calculation of?</p> <p>12 A On page 9 of 26?</p> <p>13 Q Yes.</p> <p>14 A This is the calculation of the employee discount</p> <p>15 revenue credit.</p> <p>16 Q What is the employee discount revenue credit?</p> <p>17 A They are revenues that are for employee discounts that</p> <p>18 reduce -- well, they become a revenue credit, that are included</p> <p>19 in the target revenue requirement to be recovered through rates.</p> <p>20 Q Do the employees of the company get discounted rates?</p> <p>21 A Some do.</p> <p>22 Q And those that do, those discounts then become a</p> <p>23 revenue requirement that goes into rates that other customers</p> <p>24 pay?</p> <p>25 A Correct.</p>	<p>1 remain in the same customer class?</p> <p>2 A My understanding is that they will.</p> <p>3 Q Do you know how many NEM 2 customers there are?</p> <p>4 A I do not.</p> <p>5 Q Do you know whether -- so the NEM 2 customers will pay</p> <p>6 rates based on the cost of service study, according to the</p> <p>7 company's proposal, right?</p> <p>8 Those are the rates that they will pay based on the</p> <p>9 cost of service study with a multi-year phase-in?</p> <p>10 A A multi-year what?</p> <p>11 Q Phase-in.</p> <p>12 A Okay.</p> <p>13 Q Right?</p> <p>14 A So their rates will be based upon the separate cost of</p> <p>15 service and rate design presented in Statement O.</p> <p>16 Q Okay. And that separate cost of service and rate</p> <p>17 design will be based on both NEM 1 and NEM 2 customers?</p> <p>18 A Yes.</p> <p>19 Q Okay. The NEM 1 customers won't be paying those rates</p> <p>20 based on the cost of service study that they are included in the</p> <p>21 class for, right?</p> <p>22 A No. That's my understanding.</p> <p>23 Q No, they will not be paying the rates?</p> <p>24 A No, they will not.</p> <p>25 Q All right.</p>
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<p>1 Q And what is the total amount of those employee</p> <p>2 discounts?</p> <p>3 A On page 9 it states a total of \$422,011.</p> <p>4 Q Then, of that, D 1 customers pay \$411,219?</p> <p>5 A No. D 1 customers, as a class in total, receive a</p> <p>6 discount of \$411,219.</p> <p>7 Q Okay. And are those revenues -- are those discounts</p> <p>8 for employees in the D 1 class then allocated to D 1 customers,</p> <p>9 or are they allocated to all customers?</p> <p>10 A Those are allocated to all customers.</p> <p>11 Q And then how is this collected, this revenue</p> <p>12 requirement of \$422,011? Is it collected in a basic service</p> <p>13 charge or in some other rate component?</p> <p>14 A No. It's included -- on page 2 of 11 in Statement O,</p> <p>15 line 17, you can see the \$422,000 of employee discount revenues.</p> <p>16 172,000 are included through generation, 58,000</p> <p>17 included through transmission, and 191,000 are included through</p> <p>18 distribution revenue.</p> <p>19 Q Okay. So this calculation -- let's back up.</p> <p>20 So recently, there was an order granting stipulation</p> <p>21 on some grandfathering for NEM 1 customers.</p> <p>22 Is the company planning to change any of the cost of</p> <p>23 service studies based on that stipulation?</p> <p>24 A Not that I know of.</p> <p>25 Q Will the NEM 1 customers and the NEM 2 customers</p>	<p>1 MS. ELLIOT: Yes, they will not.</p> <p>2 BY MR. BENDER:</p> <p>3 Q And the company does not intend to revise -- or create</p> <p>4 a new class so that NEM 2 customers are paying rates based on</p> <p>5 the cost of service study specific to NEM 2 customers?</p> <p>6 A I don't believe so.</p> <p>7 MR. BENDER: So in response to data request -- we will</p> <p>8 mark that as Exhibit 8. This is staff 292.</p> <p>9 (Exhibit 8 marked for identification)</p> <p>10 BY MR. BENDER:</p> <p>11 Q I'm handing you what is marked as Exhibit 8. This is</p> <p>12 a data request from staff 292.</p> <p>13 You are the responder, correct?</p> <p>14 A I am.</p> <p>15 Q Towards the bottom of the response, there's a sentence</p> <p>16 that starts, any difference in revenues will be appropriately</p> <p>17 reflected in the revenue and allocation of class revenue</p> <p>18 requirement in Statement O.</p> <p>19 If the proposed tariffs filed on docket 16-07029 are</p> <p>20 approved, Statement O can be modified in the compliance filing</p> <p>21 of this document.</p> <p>22 Do you see that? And it goes on.</p> <p>23 A Yes, I see that.</p> <p>24 Q And the proposed tariffs filed on docket 16-07209 were</p> <p>25 approved, right?</p>



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<p style="text-align: right;">Page 110</p> <p>1 A Yes, I believe so.</p> <p>2 Q Okay. So what, if anything, in Statement O will be</p> <p>3 modified as a result?</p> <p>4 A I believe currently we are not proposing any changes.</p> <p>5 However, if the commission deemed that the reduction</p> <p>6 in revenues that the company would receive because of the</p> <p>7 stipulation and grandfathering of NEM customers was appropriate</p> <p>8 to incorporate into Statement O, then that would be reflected.</p> <p>9 Q So in response to the data request, when you say it</p> <p>10 can be done, you are not saying that the company is intending or</p> <p>11 proposing to make any adjustments?</p> <p>12 A Not that I am aware.</p> <p>13 Q Also, part of your role in this case was to calculate</p> <p>14 the excess energy credit or buyback rate; is that correct?</p> <p>15 A That is correct.</p> <p>16 Q And you did that by updating the value that was</p> <p>17 approved in the NEM dockets?</p> <p>18 A That is correct.</p> <p>19 Q And part of that calculation is to use the long-term</p> <p>20 avoid cost from the previous approved IRP for the company?</p> <p>21 A That is correct.</p> <p>22 Q That would be the 15-08011 docket?</p> <p>23 A That is correct.</p> <p>24 Q And you updated line losses applied to those values;</p> <p>25 is that right?</p>	<p style="text-align: right;">Page 112</p> <p>1 capacity each hour?</p> <p>2 A That is correct.</p> <p>3 Q There is no effort to determine a capacity-specific</p> <p>4 avoided losses value?</p> <p>5 A I was provided the hourly capped avoided costs</p> <p>6 approved from that filing.</p> <p>7 Q Do you know how the company sizes its production</p> <p>8 resources to ensure enough generation capacity?</p> <p>9 A I do not.</p> <p>10 Q Was there any effort to calculate capacity value in</p> <p>11 the excess energy rate to recognize that the capacity is -- the</p> <p>12 generation capacity by NEM customers is provided at the</p> <p>13 distribution level, rather than the transmission level, for</p> <p>14 purposes of reserve, generation reserve requirements?</p> <p>15 A Can you restate the first part?</p> <p>16 Q Sure.</p> <p>17 Well, are you aware if the company has a generation</p> <p>18 reserve requirement, a requirement to have enough capacity to</p> <p>19 meet peak plus or reserve margin?</p> <p>20 A I'm generally aware, yes.</p> <p>21 Q And do you know where that allocation is applied?</p> <p>22 A I do not.</p> <p>23 Q So it's applied to a peak -- that reserve margin is</p> <p>24 applied to a peak value, right?</p> <p>25 A I don't know.</p>
<p style="text-align: right;">Page 111</p> <p>1 A I did.</p> <p>2 Q Did you do anything else to update the excess energy</p> <p>3 credits?</p> <p>4 A The information was updated to use 2017 information</p> <p>5 instead of 2016, as was done in the NEM filing.</p> <p>6 Q What information from 2017?</p> <p>7 A The avoided cost and line losses.</p> <p>8 Q So the updated values used -- oh, the 2017 avoided</p> <p>9 costs that were approved in the 2015 IRP update?</p> <p>10 A Yes.</p> <p>11 Q So it wasn't updated for the pending IRP?</p> <p>12 A No, it was not.</p> <p>13 Q Line losses are calculated hourly; is that right?</p> <p>14 A That is correct.</p> <p>15 Q And they are calculated hourly based on system loads;</p> <p>16 is that right?</p> <p>17 A Yes.</p> <p>18 Q And those are applied, then, to hourly -- those are</p> <p>19 applied to the capped long-term avoided cost values from the</p> <p>20 IRP; is that right?</p> <p>21 A That is correct.</p> <p>22 Q And those capped represent a -- or purport to</p> <p>23 represent both capacity and energy value?</p> <p>24 A That is correct.</p> <p>25 Q So the same line loss value is applied to energy and</p>	<p style="text-align: right;">Page 113</p> <p>1 Q Okay. You are not aware of any effort, then, in your</p> <p>2 calculations for avoided -- or for excess energy value to</p> <p>3 account for the reserve obligation?</p> <p>4 A My understanding is that the approved long-term</p> <p>5 avoided costs include a capacity component.</p> <p>6 Q You don't know whether that capacity component</p> <p>7 includes the reserve margin component, do you?</p> <p>8 A I do not.</p> <p>9 Q Once the loss, the line loss value is calculated for</p> <p>10 each hour are applied to the long-term avoided cost values, are</p> <p>11 those line loss adjusted values then averaged at all?</p> <p>12 A The adjusted -- or the line loss adjusted avoided</p> <p>13 costs are averaged across the year, and then also by time of use</p> <p>14 period.</p> <p>15 Q Both?</p> <p>16 A The annual average is used for the NEM flat rate</p> <p>17 schedules.</p> <p>18 Q And are the time of use period averages applied to the</p> <p>19 optional time of use NEM schedule?</p> <p>20 A They are used in the calculation of the excess energy</p> <p>21 credits for the time of use periods.</p> <p>22 Q And the averages include all hours in each period; is</p> <p>23 that right?</p> <p>24 A Correct.</p> <p>25 Q All right. There is no effort to average only the</p>

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<p>1 hours where there is NEM production?</p> <p>2 A The values are a simple average, and do not weight by</p> <p>3 the production of the NEM generation, although I believe there</p> <p>4 is positive NEM generation in any given hour.</p> <p>5 Q Is there excess energy delivered to the company in</p> <p>6 every hour of the year?</p> <p>7 A I don't know.</p> <p>8 Q We were talking about earlier how solar NEM does not</p> <p>9 produce when the sun doesn't shine, at night, right?</p> <p>10 A That's correct.</p> <p>11 Q Do those night hours of avoided costs -- or long-term</p> <p>12 avoided costs, or rates adjusted for line losses, is that still</p> <p>13 used in the average to calculate the excess energy rate that's</p> <p>14 applied to NEM customer excess generation?</p> <p>15 A That's correct. And those could be hours in which</p> <p>16 wind NEM customers are generating.</p> <p>17 Q What portion of NEM customers are wind?</p> <p>18 A Very minimal.</p> <p>19 Q Nominal?</p> <p>20 A Yes. I would say there are just a handful.</p> <p>21 Q Predominantly, all excess energy, excess generation</p> <p>22 that the company is receiving from NEM customers is</p> <p>23 solar-produced, correct?</p> <p>24 A Correct.</p> <p>25 Q And that's only coming in during hours -- during</p>	<p>1 You are aware, are you not, that utility companies use</p> <p>2 both a capped and uncapped methodology, correct?</p> <p>3 A That is my understanding, yes.</p> <p>4 Q Are you familiar with both of these methodologies?</p> <p>5 A I generally understand what they represent.</p> <p>6 Q Can you tell me what they represent, capped</p> <p>7 methodology first?</p> <p>8 A All I understand is the avoided cost is the cost of</p> <p>9 providing the next unit of energy on the system.</p> <p>10 The capped portion includes a capacity component that</p> <p>11 is added to the peak summer months and then compared to the</p> <p>12 capping value of the next best price, I believe, or contract</p> <p>13 price, for a renewable unit.</p> <p>14 The lesser of the two are used to come up with the cap</p> <p>15 avoided cost.</p> <p>16 Q Okay. And that's the distinction between the two, is</p> <p>17 the use of the results of the RFP?</p> <p>18 A The capping piece, I believe so, yes.</p> <p>19 Q Okay. You said that -- I'm paraphrasing here,</p> <p>20 Mr. Pollard, so correct me if I get this wrong.</p> <p>21 But that the avoided cost is about the cost to serve</p> <p>22 the next incremental megawatt of load.</p> <p>23 Did I capture that correctly?</p> <p>24 A That's my understanding.</p> <p>25 Q Is another way of saying that is that it's an estimate</p>
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<p>1 daylight hours, correct?</p> <p>2 A There might have been some instances with customers</p> <p>3 who had some battery storage where there was some additional</p> <p>4 generation coming back later on in the evening, but typically,</p> <p>5 yes, it's during daylight hours.</p> <p>6 Q Are you saying that's theoretically possible, or do</p> <p>7 you know that there are customers who have batteries who feed</p> <p>8 generation -- or feed energy from their batteries onto the grid?</p> <p>9 A I remember discussing customers with that sort of data</p> <p>10 within our group, but I don't remember to what extent that was,</p> <p>11 and if that was Sierra or Nevada Power.</p> <p>12 Q So with that possible exception, customers with</p> <p>13 batteries, using the batteries to feed power back onto the grid,</p> <p>14 the powers -- the predominant amount, the vast, vast majority of</p> <p>15 the excess energy delivered to the utility company from NEM</p> <p>16 customers is coming from solar PV generation during daylight</p> <p>17 hours?</p> <p>18 A Correct.</p> <p>19 MR. BENDER: Off the record for a second.</p> <p>20 (A recess was taken)</p> <p>21 (Exhibit 9 marked for identification)</p> <p>22 EXAMINATION</p> <p>23 BY MS. DRAKULICH:</p> <p>24 Q Mr. Pollard, you had some discussion with Mr. Bender</p> <p>25 about the utility's long-term avoided cost calculation.</p>	<p>1 of the incremental reduction in cost, with the addition of a</p> <p>2 specific type of resource like a QF generator?</p> <p>3 A I don't believe a reduction, no.</p> <p>4 Q I want to ask you a couple of questions about the</p> <p>5 capped versus uncapped methodology. I want you to take a look</p> <p>6 at what we marked as next in order in this deposition, which,</p> <p>7 again, is Exhibit 9.</p> <p>8 I'll represent to you that this is a -- these are</p> <p>9 several pages from docket number 08, I believe it's 011, which</p> <p>10 was Sierra Pacific Power Company's second amendment to its 2014</p> <p>11 to 2016 three-year action plan.</p> <p>12 Do you see that in the caption?</p> <p>13 A I do.</p> <p>14 Q Okay. Now I want you to take a look at pages 65 of</p> <p>15 230 through pages 67 -- excuse me -- 68 and 69 of 230.</p> <p>16 Is this the long-term avoided cost section of the</p> <p>17 integrated resource plan in docket 15-08011?</p> <p>18 A Based on what you have given me, I would say so.</p> <p>19 Q On page 66 of this document, I wanted you to take a</p> <p>20 look at the first paragraph at the top of page 66. And I want</p> <p>21 you to look at the last line in that paragraph.</p> <p>22 It starts, the use of the capped methodology is</p> <p>23 consistent with the purpose of the LTAC calculation, which is to</p> <p>24 reflect utility's next best alternative for serving the next</p> <p>25 demand in megawatt capacity and energy.</p>

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<p style="text-align: right;">Page 118</p> <p>1 Do you see that?</p> <p>2 A I do.</p> <p>3 Q Is it a fair statement to say that this is the utility</p> <p>4 company's statement of the purpose of the long-term avoided cost</p> <p>5 methodology?</p> <p>6 A I was not involved with that docket, but based upon</p> <p>7 the information that you have provided, I would assume so.</p> <p>8 Q Well, when we started this line of questioning,</p> <p>9 Mr. Pollard, I asked you what your understanding was about the</p> <p>10 long-term avoided cost calculation.</p> <p>11 And I believe you said something very similar to</p> <p>12 what's reflected in here after the comma, which is to, and I'm</p> <p>13 quoting now from the exhibit, which is to reflect, I think it</p> <p>14 should say "the" utility's next best alternative for serving the</p> <p>15 next demand in megawatt capacity and energy.</p> <p>16 Do you see that?</p> <p>17 A I do see that.</p> <p>18 Q Aside from this document, are you aware of any other</p> <p>19 place, whether in statute or commission decision, where the</p> <p>20 purpose of the long-term avoided cost calculation is</p> <p>21 specifically set forward?</p> <p>22 A I believe it was mentioned in the order to docket</p> <p>23 15-07042 in the calculation of the excess energy claim.</p> <p>24 Q And when you say 15-07042, those were consolidated</p> <p>25 dockets also including 15-07041, correct?</p>	<p style="text-align: right;">Page 120</p> <p>1 that the last approved avoided cost calculation that the</p> <p>2 commission was referring to, in your opinion?</p> <p>3 A Yes.</p> <p>4 Q Is it your understanding that the concept of avoided</p> <p>5 costs originated as a means to establish the appropriate</p> <p>6 compensation under PURPA for qualifying facilities, the original</p> <p>7 purpose?</p> <p>8 A No.</p> <p>9 Q Take a look at what I have handed out as Exhibit 9</p> <p>10 again, and go to page 65 where it says section seven, long-term</p> <p>11 avoided costs.</p> <p>12 A I'm there.</p> <p>13 Q Okay. And do you see there at the bottom of the page,</p> <p>14 the first -- the second line begins, under regulations</p> <p>15 established by the commission for implementing the Public</p> <p>16 Utility Regulatory Policy Act, LTAC rates are calculated based</p> <p>17 on the mix of resources approved by the commission in the</p> <p>18 integrated resource planning process.</p> <p>19 Did I read that correctly?</p> <p>20 A Yes, you did.</p> <p>21 Q And then further down in the paragraph it says -- and</p> <p>22 now, Mr. Pollard, it's about -- it's six lines down, halfway</p> <p>23 through the line that begins, LTAC rates calculated based.</p> <p>24 Do you see that?</p> <p>25 A I do.</p>
<p style="text-align: right;">Page 119</p> <p>1 A Correct.</p> <p>2 Q And is your recollection of where the purpose of the</p> <p>3 long-term avoided cost was stated in those dockets similar to</p> <p>4 what we see in Exhibit Number 9, the reference that you and I</p> <p>5 are talking about on page 66?</p> <p>6 A Was similar to the use?</p> <p>7 Q You said that -- I asked you if you were aware of</p> <p>8 another place, either a commission decision or a statute,</p> <p>9 et cetera, where the purpose of the long-term avoided cost was</p> <p>10 set forth.</p> <p>11 I think your response to that was, or what I heard</p> <p>12 was, I believe that happened in docket 15-07042.</p> <p>13 Do you recall that?</p> <p>14 A Yes.</p> <p>15 Q Do you know what is meant by "the next best</p> <p>16 alternative" on page 66 in the statement that we are discussing?</p> <p>17 A No, I do not.</p> <p>18 Q In docket 15-07042, you have stated that the</p> <p>19 commission defined the long-term avoided cost.</p> <p>20 Was it consistent with what we see here on page 66, if</p> <p>21 you recall?</p> <p>22 A Yes. And I believe the commission stated that the</p> <p>23 long-term avoided cost from the last approved IRP should be used</p> <p>24 in the calculation of the excess energy credit.</p> <p>25 Q And is it -- would that refer to docket 15-08011? Is</p>	<p style="text-align: right;">Page 121</p> <p>1 Q LTAC rates calculated based on Sierra's approved IRP</p> <p>2 amendment are to be offered to qualifying facilities for --</p> <p>3 excuse me -- to qualifying facilities, QFs, for blocks of</p> <p>4 capacity approved in the IRP amendment.</p> <p>5 Do you see that?</p> <p>6 A I do.</p> <p>7 Q Okay. So the utility company's own filing refers to</p> <p>8 PURPA and the development of the long-term avoided costs and the</p> <p>9 purpose related to PURPA at qualifying facilities, correct?</p> <p>10 A It appears to be, yes.</p> <p>11 Q And when I asked you the question about is the genesis</p> <p>12 of the LTAC rates the PURPA, you said no.</p> <p>13 What is your understanding, then, about what the</p> <p>14 genesis is?</p> <p>15 MS. ELLIOT: That misstates the question that you</p> <p>16 asked.</p> <p>17 MS. DRAKULICH: I'll restate the question.</p> <p>18 MS. ELLIOT: Okay.</p> <p>19 BY MS. DRAKULICH:</p> <p>20 Q Mr. Pollard, what is your understanding about the</p> <p>21 original purpose of developing long-term avoided cost rates?</p> <p>22 A I don't know.</p> <p>23 Q You don't. Okay.</p> <p>24 Is it your understanding that when establishing the</p> <p>25 appropriate compensation for the generators, when developing the</p>

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<p style="text-align: right;">Page 122</p> <p>1 long-term avoided cost rate, that the intention was to determine</p> <p>2 the extent to which utility costs were avoided when the</p> <p>3 generators were added to the system?</p> <p>4 A I'm sorry. Can you repeat the question?</p> <p>5 Q Of course.</p> <p>6 Is it your understanding that when establishing the</p> <p>7 appropriate compensation for the generators in the long-term</p> <p>8 avoided cost calculation, that the intent was to determine the</p> <p>9 extent to which utility costs were avoided when the generators</p> <p>10 were added to the system?</p> <p>11 A I don't know what the intent was.</p> <p>12 Q What -- you don't know what the -- the original intent</p> <p>13 was?</p> <p>14 A No.</p> <p>15 Q What is your understanding about -- do you have any</p> <p>16 opinion about what the intent was with regard to identifying</p> <p>17 generators in the development of the long-term avoided costs?</p> <p>18 A I think it's reasonable to develop the methodology</p> <p>19 that pays facilities an appropriate cost that the utility could</p> <p>20 get elsewhere for generation that they provide.</p> <p>21 Q And when you say elsewhere, what would those options</p> <p>22 be?</p> <p>23 A It could be through additional facilities or the</p> <p>24 market.</p> <p>25 Q Additional facilities that they would own or purchase</p>	<p style="text-align: right;">Page 124</p> <p>1 of long-term avoided cost calculation is that it's meant to</p> <p>2 quantify the utility costs that are avoided when an incremental</p> <p>3 generator is added to the system?</p> <p>4 A I think that's a reasonable definition of avoided</p> <p>5 cost.</p> <p>6 Q Take a look at Exhibit 9 again.</p> <p>7 Take a look at page 66, and I want to discuss with you</p> <p>8 the capped long-term avoided costs, and in particular, number</p> <p>9 five under the capped long-term avoided costs.</p> <p>10 Can I direct your attention to that?</p> <p>11 Number five says, if the supply curve shows that the</p> <p>12 resource will generate for a given hour and the all-in pricing,</p> <p>13 energy and capacity, of that resource is less than the marginal</p> <p>14 energy cost or capacity for that hour, select the price of the</p> <p>15 new resource as the appropriate proxy for the long-term avoided</p> <p>16 cost for that hour.</p> <p>17 Did I read that correctly?</p> <p>18 A Yes.</p> <p>19 Q What is your understanding of the first time that the</p> <p>20 utility company employed this capped long-term avoided cost</p> <p>21 methodology?</p> <p>22 Do you recall what docket that was?</p> <p>23 A I don't know.</p> <p>24 Q Do you recall what resource was selected in that first</p> <p>25 instance?</p>
<p style="text-align: right;">Page 123</p> <p>1 power agreements, or both?</p> <p>2 A I think it could be either.</p> <p>3 Q And with PURPA and the development of the long-term</p> <p>4 avoided cost, isn't it true that the utility company would</p> <p>5 determine -- the utility company would offer the long-term</p> <p>6 avoided cost rate that it set to the PURPA generator?</p> <p>7 A I don't know what the PURPA requirements are.</p> <p>8 Q Do you have any knowledge about the -- about PURPA and</p> <p>9 the role it plays in the development of long-term avoided costs?</p> <p>10 A No.</p> <p>11 Q Who would be a better person to have that discussion</p> <p>12 with at NV Energy?</p> <p>13 A I'm not sure.</p> <p>14 MS. DRAKULICH: Ms. Elliot, anybody?</p> <p>15 MS. ELLIOT: Are you asking me if I'm the appropriate</p> <p>16 person?</p> <p>17 MS. DRAKULICH: No, I'm not asking you if you're the</p> <p>18 appropriate person. I'm asking if there's a person that you are</p> <p>19 aware of that is not Mr. Pollard.</p> <p>20 MS. ELLIOT: Mr. Elicequi, Mr. Doubek, Miss Elliot.</p> <p>21 MR. BENDER: If you can raise your right hand. Do you</p> <p>22 swear --</p> <p>23 MS. ELLIOT: I don't need to.</p> <p>24 BY MS. DRAKULICH:</p> <p>25 Q Mr. Pollard, is another way of looking at the purpose</p>	<p style="text-align: right;">Page 125</p> <p>1 A I don't know.</p> <p>2 Q In docket number 15-08011, what is your recollection</p> <p>3 of the resource that the long-term avoided cost was tied to?</p> <p>4 A I don't know.</p> <p>5 Q Okay. And the long-term avoided cost that was</p> <p>6 developed that was used for purposes of developing the excess</p> <p>7 energy rate that you developed in docket 16-06006, do you know</p> <p>8 what resource was used in the capped long-term avoided cost</p> <p>9 methodology?</p> <p>10 A No, I don't.</p> <p>11 Q Looking at statement five that I just read to you and</p> <p>12 directing your attention to on page 66, is another way of</p> <p>13 explaining this statement to say that in the hours where the sum</p> <p>14 of the marginal energy and capacity forecasts is higher than the</p> <p>15 supply curve of the next most cost-effective resource from the</p> <p>16 recent utility solicitation, and if that resource is generating</p> <p>17 in that hour, then the capped methodology chooses the lower</p> <p>18 value from the resource supply curve?</p> <p>19 A I'm sorry. Where was that?</p> <p>20 Q I'm asking you to take a look at -- take a look again</p> <p>21 on page 66 at the capped long-term avoided cost and read to</p> <p>22 yourself what I have already read out loud in this deposition,</p> <p>23 which is number five.</p> <p>24 A Okay.</p> <p>25 Q Okay? My question for you is, is there -- is another</p>


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<p style="text-align: right;">Page 126</p> <p>1 way to say what is in number five under the capped long-term 2 avoided cost, in the hours where the sum of the marginal energy 3 and capacity forecasts is higher than the supply curve of the 4 next most cost-effective resource from the recent solicitation, 5 and if that resource is generating in that hour, the capped 6 methodology, described on page 66 of Exhibit 9, chooses the 7 lower value from that resource's supply curve?</p> <p>8 A Yes, that's my understanding.</p> <p>9 Q Okay. In those hours when the long-term avoided cost 10 value is capped in this way, does the utility still incur the 11 costs associated with the marginal generation cost forecast?</p> <p>12 A I don't know.</p> <p>13 Q In hours where the solar -- so, for example, my 14 understanding is that the capped long-term avoided cost resource 15 that was recently used by the utility company was 100 megawatts 16 solar PPA.</p> <p>17 Is that also your understanding?</p> <p>18 A I believe it was solar, but I don't know much more 19 than that.</p> <p>20 Q Okay. So assuming it was solar, in hours where the 21 solar PPA -- this is calculating the capped long-term avoided 22 cost now -- in hours where the solar PPA is lower than the 23 marginal energy and capacity forecasts, would the utility 24 continue to incur costs of the energy and capacity?</p> <p>25 MS. ELLIOT: I'm sorry, Kathy.</p>	<p style="text-align: right;">Page 128</p> <p>1 calculation, in hours where -- again, the project for purposes 2 of this question, or the resource for purposes of this question 3 is the solar PPA.</p> <p>4 So in hours where the solar PPA is lower than the 5 marginal energy and capacity forecasts, does the utility 6 continue to incur the costs of the energy and capacity 7 forecasts?</p> <p>8 A I don't know.</p> <p>9 Q A follow-up question, Mr. Pollard.</p> <p>10 If load is reduced in the hours where the solar PPA is 11 lower than the marginal and capacity forecasts, would the 12 utility avoid costs consistent with marginal energy and capacity 13 forecasts?</p> <p>14 MS. ELLIOT: I believe that's the same question.</p> <p>15 BY MS. DRAKULICH:</p> <p>16 Q Mr. Pollard, do you have an answer?</p> <p>17 A I don't know.</p> <p>18 Q I want to use an example, Mr. Pollard, and see if this 19 can get to some of the information that you have about the 20 capped long-term avoided cost methodology.</p> <p>21 So I want to set up a hypothetical.</p> <p>22 In the case of a production simulation that produces 23 the marginal energy cost values used in the long-term avoided 24 cost methodology, if we added one megawatt, let's refer to it as 25 the perfect resource, in other words, one that generates one</p>
<p style="text-align: right;">Page 127</p> <p>1 Continue to incur? These are the costs that you just 2 characterized as estimates?</p> <p>3 MS. DRAKULICH: I'm talking about -- I'll restate the 4 question.</p> <p>5 MS. ELLIOT: I'm just not following. I'm sorry.</p> <p>6 BY MS. DRAKULICH:</p> <p>7 Q Okay. So Mr. Pollard, we were talking about the 8 capped long-term avoided cost, and I have asked you to assume 9 that the resource that was selected as a result of implementing 10 number five on page 66 of Exhibit 9 was a solar PPA.</p> <p>11 So my question to you is, in hours where the solar PPA 12 is lower than the marginal energy and capacity forecasts, does 13 the utility continue to incur the costs of energy and capacity 14 forecasts?</p> <p>15 A My understanding is that this information is used as a 16 model to estimate an economic dispatch going forward.</p> <p>17 They are modeled estimates that the company does not 18 necessarily incur, but are estimated, and because of the cap, 19 those costs would be limited to those.</p> <p>20 Q Limited to those what?</p> <p>21 A At the cap, is my understanding.</p> <p>22 Q Okay. So let me ask you it again. I appreciate that 23 information. I don't think it addresses the question I asked.</p> <p>24 Assuming we have implemented step five on page 66 of 25 Exhibit 9 regarding the capped avoided -- long-term avoided cost</p>	<p style="text-align: right;">Page 129</p> <p>1 megawatt at every hour of the year at zero cost, do you know how 2 this would impact the dispatch of other resources in the model?</p> <p>3 A I do not.</p> <p>4 Q In developing the long-term avoided cost, can you 5 explain your understanding of how renewable resources or even a 6 PURPA resource are characterized in the production simulation 7 model?</p> <p>8 A I really don't know.</p> <p>9 Q Okay. Are PURPA contracts or solar PPAs characterized 10 as must-take contracts?</p> <p>11 A That is my understanding.</p> <p>12 Q Okay. Has the utility ever used, historically, a 13 PURPA contract at -- strike that.</p> <p>14 When I say must-take, is your understanding of that 15 that the generation must be taken by the utility? In other 16 words, the dispatch of that resource cannot change?</p> <p>17 A I believe that's a reasonable description, yes.</p> <p>18 Q So with regard to the resource, for example, the PURPA 19 resource, would you agree that, all else being equal, that the 20 addition of this resource would require that the rest of the 21 dispatchable resource portfolio would be dispatched less?</p> <p>22 In other words, the amount of the market purchases 23 would be reduced?</p> <p>24 MS. ELLIOT: Just market purchases?</p> <p>25 ///</p>

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<p>1 BY MS. DRAKULICH:</p> <p>2 Q Just market purchases for now.</p> <p>3 A I don't know.</p> <p>4 Q Same question, but -- not just market purchases, but</p> <p>5 other resources that might qualify.</p> <p>6 So, in other words, all else being equal, the addition</p> <p>7 of a PURPA resource, or even the solar PPA that we spoke of,</p> <p>8 would require that the rest of the dispatchable resource</p> <p>9 portfolio would be dispatched less.</p> <p>10 So that would include not only the market purchases,</p> <p>11 but other resources that would be eligible.</p> <p>12 A I don't know.</p> <p>13 Q So let me ask you something, Mr. Pollard.</p> <p>14 How do you -- who provides you with the long-term</p> <p>15 avoided cost calculation for purposes of calculating excess</p> <p>16 energy rates?</p> <p>17 A I was provided that information from the resource</p> <p>18 planning department.</p> <p>19 Q And who in the resource planning department is it that</p> <p>20 develops the long-term avoided costs that's provided to you?</p> <p>21 A I believe that's Rob Kockur.</p> <p>22 Q Rob Kockur?</p> <p>23 A I believe that is.</p> <p>24 Q And is it your understanding that Mr. Kockur develops</p> <p>25 the long-term avoided cost himself?</p>	<p>1 Q Who told you to use the term private generation in</p> <p>2 your testimony?</p> <p>3 A I think it was Miss Walsh.</p> <p>4 Q Okay. And why did she tell you to use the term</p> <p>5 private generation to describe net energy metering?</p> <p>6 A I believe it was to provide a clear description of</p> <p>7 that customer generation being on-site and owned by the</p> <p>8 customer.</p> <p>9 Q And why does that provide a clearer definition?</p> <p>10 A The term private, I believe, differentiates it from</p> <p>11 the company generation.</p> <p>12 Q Does the utility company own most of its renewable --</p> <p>13 excuse me -- most of its utility scale renewable projects for</p> <p>14 which it has purchase power agreements?</p> <p>15 A I don't know.</p> <p>16 Q Does the utility company own the first solar project</p> <p>17 that was approved for construction by the commission in docket</p> <p>18 14-05003?</p> <p>19 A I don't know.</p> <p>20 Q If it does not, let's assume for a minute that the</p> <p>21 utility does not own it, do you also refer to resources not</p> <p>22 owned by the utility company that are utility scale as private</p> <p>23 generation?</p> <p>24 A I believe if the project was large enough to serve one</p> <p>25 customer, it could still be considered private generation.</p>
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<p>1 A Or his group does.</p> <p>2 Q Okay. Then who are the members of his group, if you</p> <p>3 know?</p> <p>4 A There is Barbara Allen. I don't remember.</p> <p>5 MS. ELLIOT: I can't help you, unless --</p> <p>6 THE WITNESS: I can only remember Barbara Allen.</p> <p>7 MS. DRAKULICH: Ms. Elliot, I'm sorry, did you want to</p> <p>8 add?</p> <p>9 MS. ELLIOT: If you want me to, I will.</p> <p>10 MS. DRAKULICH: Yes, please.</p> <p>11 MS. ELLIOT: Dave Maher, Steve Maynard.</p> <p>12 MS. DRAKULICH: Okay.</p> <p>13 MS. ELLIOT: I think that's everyone who does</p> <p>14 production costing. I could be mistaken.</p> <p>15 BY MS. DRAKULICH:</p> <p>16 Q Okay. Thank you.</p> <p>17 Mr. Pollard, in your testimony in this case, and I am</p> <p>18 looking at volume 8 of 21, your direct testimony now, not your</p> <p>19 certification testimony, you used the term private generation to</p> <p>20 refer to NEM, correct?</p> <p>21 A For those customers with generation on their sites</p> <p>22 that are eligible for the NEM class, yes.</p> <p>23 Q Okay. Where does the term "private generation"</p> <p>24 originate?</p> <p>25 A I don't know.</p>	<p>1 However, if a project is built to serve the system as</p> <p>2 a whole, then it would not be considered.</p> <p>3 Q And why is that?</p> <p>4 A It's how I, I guess, differentiate between the use of</p> <p>5 on-site generation for one customer's needs versus a utility</p> <p>6 scale solar project or renewables project that is built to serve</p> <p>7 the system.</p> <p>8 Q And from what I understand you saying, is that in your</p> <p>9 mind it's private generation, not only because it's behind the</p> <p>10 meter, but even if it's not behind the meter, it's because it</p> <p>11 serves a single customer?</p> <p>12 A Correct.</p> <p>13 Q Okay. And, again, where did you develop this</p> <p>14 understanding?</p> <p>15 A Of having been working through this and last year's</p> <p>16 NEM file.</p> <p>17 Q My understanding is that EEI recently released a</p> <p>18 lexicon of terms that had -- they used the term private</p> <p>19 generation.</p> <p>20 Were you privy to that document?</p> <p>21 A I don't believe I have seen it, no.</p> <p>22 Q Have you reviewed any EEI documents in the last year?</p> <p>23 MS. ELLIOT: On any topic?</p> <p>24 BY MS. DRAKULICH:</p> <p>25 Q On any topic.</p>

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<p style="text-align: right;">Page 134</p> <p>1 A There might have been a couple last year, but I don't</p> <p>2 really remember what they were about.</p> <p>3 Q And how do you gain access to EEI documentation?</p> <p>4 A I used to be able to look at it online.</p> <p>5 Q And are you not able to do that anymore?</p> <p>6 A I'm unsure.</p> <p>7 Q I'm sorry?</p> <p>8 A I'm unsure.</p> <p>9 Q Does the uncertainty come from the fact that you've</p> <p>10 not recently tried?</p> <p>11 A That, and changes in corporate policy with internet</p> <p>12 access.</p> <p>13 Q And the changes in corporate policy with internet</p> <p>14 access might limit your ability to access EEI's website online?</p> <p>15 A It may at this time. There would have to be a</p> <p>16 business purpose, so forth, to get access to that information if</p> <p>17 it was deemed necessary.</p> <p>18 Q How often do you use EEI materials in the preparation</p> <p>19 of testimony that you file with the commission?</p> <p>20 A I don't know if I ever have.</p> <p>21 Q Are you familiar with the EEI online work rooms?</p> <p>22 A No.</p> <p>23 Q So you have never accessed the EEI online work rooms</p> <p>24 either for purposes of performance of your job or preparation of</p> <p>25 testimony?</p>	<p style="text-align: right;">Page 136</p> <p>1 MS. DRAKULICH: Okay. Thank you. Thank you,</p> <p>2 Mr. Bender.</p> <p>3 MR. BENDER: Sure. I don't have anything further,</p> <p>4 unless anybody else does.</p> <p>5 MS. ELLIOT: Let's go off.</p> <p>6 MR. BENDER: Reserve signature?</p> <p>7 MS. DRAKULICH: Before we break, can I ask a favor of</p> <p>8 everyone? Before we break, can I make a quick phone call? I</p> <p>9 was hoping to get one other document.</p> <p>10 (Discussion off the record)</p> <p>11 MS. ELLIOT: I think we're finished for the day.</p> <p>12 Thank you.</p> <p>13 MR. BENDER: The witness is going to review and sign?</p> <p>14 MS. ELLIOT: Yes.</p> <p>15 MR. BENDER: I agree with that. Thank you.</p> <p>16 (Proceedings concluded at 2:58 p.m.)</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>
<p style="text-align: right;">Page 135</p> <p>1 A Not that I remember.</p> <p>2 Q But certainly not in this case for purposes of</p> <p>3 preparing your testimony, direct and certification, in docket</p> <p>4 16-06006?</p> <p>5 A Correct.</p> <p>6 Q Aside from using the term private generation in this</p> <p>7 case, I believe you said it was on the instruction of</p> <p>8 Miss Walsh.</p> <p>9 Where else have you seen the term private generation</p> <p>10 used to describe net energy metering?</p> <p>11 A In the testimony that the company has filed in this</p> <p>12 docket, and discussion about that in Mr. Elicequi's deposition.</p> <p>13 Q And with regard to your conversations with Miss Walsh,</p> <p>14 what did she tell you the source of the term private generation</p> <p>15 was?</p> <p>16 A I don't believe she did.</p> <p>17 Q So you just used it because she is a supervisor who</p> <p>18 directed you to use it?</p> <p>19 A Yes, and it makes sense.</p> <p>20 Q And why does it make sense?</p> <p>21 A Because I believe it's a clear definition that</p> <p>22 differentiates between private and utility scale generation.</p> <p>23 Q Provided it's used to serve a single customer?</p> <p>24 A That's how -- that is my understanding. That's what</p> <p>25 makes it clear to me.</p>	<p style="text-align: right;">Page 137</p> <p>1 STATE OF NEVADA )</p> <p>2 ) ss.</p> <p>3 COUNTY OF WASHOE )</p> <p>4 I, DEBORAH MIDDLETON GRECO, a Certified Court Reporter</p> <p>5 in and for the State of Nevada, do hereby certify:</p> <p>6 That on Tuesday, September 20, 2016, at the hour of</p> <p>7 9:08 a.m. of said day, at 5594 Longley Lane, Unit B, Reno,</p> <p>8 Nevada, personally appeared TIMOTHY POLLARD, who was duly sworn</p> <p>9 by me to testify the truth, the whole truth and nothing but the</p> <p>10 truth, and thereupon was deposed in the matter entitled herein;</p> <p>11 That I am not a relative, employee or independent</p> <p>12 contractor of counsel to any of the parties, or a relative,</p> <p>13 employee or independent contractor of the parties involved in</p> <p>14 the proceedings, or a person financially interested in the</p> <p>15 proceeding;</p> <p>16 That said deposition was taken in verbatim stenotype</p> <p>17 notes by me, a Certified Court Reporter, and thereafter</p> <p>18 transcribed into typewriting as herein appears;</p> <p>19 That the foregoing transcript, consisting of pages 1</p> <p>20 through 137, is a full, true and correct transcription of my</p> <p>21 stenotype notes of said deposition.</p> <p>22 DATED: At Reno, Nevada, this 26th day of September,</p> <p>23 2016.</p> <p>24 </p> <p>25</p> <p style="text-align: center;">DEBORAH MIDDLETON GRECO CCR #113, RDR, CRR</p>

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<div style="text-align: right; margin-bottom: 10px;">Page 138</div> <div style="text-align: center; margin-bottom: 10px;">ERRATA SHEET</div> <p>2</p> <p>3</p> <p>4</p> <p>5 I declare under penalty of perjury that I have read the</p> <p>6 foregoing _____ pages of my testimony, taken</p> <p>7 on _____ (date) at</p> <p>8 _____ (city), _____ (state),</p> <p>9</p> <p>10 and that the same is a true record of the testimony given</p> <p>11 by me at the time and place herein</p> <p>12 above set forth, with the following exceptions:</p> <p>13</p> <table style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 10%;">Page</th><th style="width: 10%;">Line</th><th style="width: 40%;">Should read:</th><th style="width: 40%;">Reason for Change:</th></tr></thead><tbody><tr><td>14</td><td></td><td></td><td></td></tr><tr><td>15</td><td></td><td></td><td></td></tr><tr><td>16</td><td>— —</td><td>_____</td><td>_____</td></tr><tr><td>17</td><td></td><td>_____</td><td>_____</td></tr><tr><td>18</td><td>— —</td><td>_____</td><td>_____</td></tr><tr><td>19</td><td></td><td>_____</td><td>_____</td></tr><tr><td>20</td><td>— —</td><td>_____</td><td>_____</td></tr><tr><td>21</td><td></td><td>_____</td><td>_____</td></tr><tr><td>22</td><td>— —</td><td>_____</td><td>_____</td></tr><tr><td>23</td><td></td><td>_____</td><td>_____</td></tr><tr><td>24</td><td>— —</td><td>_____</td><td>_____</td></tr><tr><td>25</td><td></td><td></td><td></td></tr></tbody></table>	Page	Line	Should read:	Reason for Change:	14				15				16	— —	_____	_____	17		_____	_____	18	— —	_____	_____	19		_____	_____	20	— —	_____	_____	21		_____	_____	22	— —	_____	_____	23		_____	_____	24	— —	_____	_____	25																				
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<div style="text-align: right; margin-bottom: 10px;">Page 139</div> <div style="text-align: center; margin-bottom: 10px;">ERRATA SHEET</div> <table style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 10%;">Page</th><th style="width: 10%;">Line</th><th style="width: 40%;">Should read:</th><th style="width: 40%;">Reason for Change:</th></tr></thead><tbody><tr><td>2</td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td></tr><tr><td>4</td><td>— —</td><td>_____</td><td>_____</td></tr><tr><td>5</td><td></td><td>_____</td><td>_____</td></tr><tr><td>6</td><td>— —</td><td>_____</td><td>_____</td></tr><tr><td>7</td><td></td><td>_____</td><td>_____</td></tr><tr><td>8</td><td>— —</td><td>_____</td><td>_____</td></tr><tr><td>9</td><td></td><td>_____</td><td>_____</td></tr><tr><td>10</td><td>— —</td><td>_____</td><td>_____</td></tr><tr><td>11</td><td></td><td>_____</td><td>_____</td></tr><tr><td>12</td><td>— —</td><td>_____</td><td>_____</td></tr><tr><td>13</td><td></td><td>_____</td><td>_____</td></tr><tr><td>14</td><td>— —</td><td>_____</td><td>_____</td></tr><tr><td>15</td><td></td><td>_____</td><td>_____</td></tr><tr><td>16</td><td>— —</td><td>_____</td><td>_____</td></tr><tr><td>17</td><td></td><td></td><td></td></tr></tbody></table> <p>18 Date: _____</p> <p style="text-align: center;">Signature of Witness</p> <p>19</p> <p style="text-align: center;">_____</p> <p style="text-align: center;">Name Typed or Printed</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	Page	Line	Should read:	Reason for Change:	2				3				4	— —	_____	_____	5		_____	_____	6	— —	_____	_____	7		_____	_____	8	— —	_____	_____	9		_____	_____	10	— —	_____	_____	11		_____	_____	12	— —	_____	_____	13		_____	_____	14	— —	_____	_____	15		_____	_____	16	— —	_____	_____	17				
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Exhibit RG-3:  
Deposition of  
Shawn M. Elicegui

Page 1		Page 3	
1	BEFORE THE PUBLIC UTILITIES COMMISSION OF NEVADA	1	
2	--oOo--	2	APPEARANCES:
3	IN THE MATTER of the )	3	(Continued)
4	Application of SIERRA PACIFIC )	4	
5	POWER COMPANY d/b/a NV ) Docket No 16-06006	5	For the Bureau of State of Nevada
6	Energy, filed pursuant to NRS )	6	Consumer Protection Attorney General's Office
7	704 I10(3), for authority to )	7	By: DAVID NORRIS, ESQ.
8	adjust its annual revenue )	8	-and-
9	requirement for general rates )	9	PATRICK MORTON
10	charged to all classes of )	10	100 N. Carson St.
11	electric customers and for )	11	Carson City, NV
12	relief properly related )	12	
13	thereto )	13	
14		14	
15	DEPOSITION OF SHAWN ELICEGUI	15	
16	TUESDAY, SEPTEMBER 6, 2016	16	
17	Reno, Nevada	17	
18		18	
19		19	
20		20	
21		21	
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23		23	
24		24	
25	REPORTED BY: Janet Menges, CCR #206	25	
Page 2		Page 4	
1	APPEARANCES:	1	I N D E X
2		2	EXAMINATION PAGE
3	For SolarCity: McDONALD CARANO	3	BY MS. DRAKULICH 7
4	Attorneys at Law	4	BY MR. BENDER 112
5	By: KATHLEEN DRAKULICH, ESQ.	5	BY MS. DRAKULICH 130
6	100 West Liberty Street	6	
7	Reno, NV	7	
8	-and-	8	EXHIBITS
9	JONATHAN WELLINGHOFF, ESQ.	9	NUMBER DESCRIPTION PAGE
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11	Washington, DC	11	2 Spreadsheet of Subpoena Duces Tecum 15
12		12	Material
13	For Vote Solar: EARTHJUSTICE	13	3 Statement H page 1 of 3 Mello 15
14	Attorneys at Law	14	4 Statement I page 1 of 3 Franklin 16
15	By: DAVID BENDER, ESQ.	15	5 Statement I 16
16	1625 Massachusetts Ave., NW	16	6 Schedule D-1 Domestic Service 18
17	Washington, DC	17	7 Electricity Prices in Texas 21
18	-and-	18	8 NEM Regulatory liability methodology 25
19	SARA GERSEN, ESQ.	19	9 5/27/16 e-mail 29
20	(Telephonically)	20	10 The Future of Solar Energy 31
21	800 Wilshire Blvd.	21	11 Data Request SC 26 48
22	Los Angeles, CA	22	12 Nevada Net Energy Metering Impacts 50
23		23	Evaluation 2016 Update
24	For NV Energy: ELIZABETH ELLIOT, ESQ.	24	13 IRP filing in Docket No. 15-08001 117
25	NV Energy	25	
	Associate General Counsel		
	Post Office Box 10100		
	Reno, NV		
	For NPUC: SAMUEL S. CRANO, ESQ.		
	State of Nevada		
	Public Utilities Commission		
	Assistant Staff Counsel		
	1150 E. William Street		
	Carson City, NV		

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1	ATTORNEY'S NOTES/CORRECTIONS		1	MR. MORTON: Patrick Morton, Bureau of Consumer	
2	PAGE LINE		2	Protection.	
3	____		3	MR. NORRIS: David Norris, Bureau of Consumer	
4	____		4	Protection.	
5	____	01:38	5	MR. CRANO: Sam Crano, regulatory operations	
6	____		6	staff.	
7	____		7	MR. WELLINGHOFF: Jon Wellinghoff, regulatory	
8	____		8	counsel for SolarCity.	
9	____		9	MS. DRAKULICH: Kathleen Drakulich with	
10	____	01:39	10	McDonald Carano also regulatory counsel for SolarCity.	
11	____		11	MS. ELLIOT: Elizabeth Elliot representing	
12	____		12	Mr. Elicegui and NV Energy.	
13	____		13	THE WITNESS: Shawn Elicegui.	
14	____		14		
15	____		15	EXAMINATION	
16	____		16	BY MS. DRAKULICH:	
17	____		17	Q Thank you.	
18	____		18	Mr. Elicegui, could you state your name and	
19	____		19	spell your last name for us?	
20	____	01:39	20	A Shawn, S-h-a-w-n, Elicegui, E-l-i-c-e-g-u-i.	
21	____		21	Q And your title, sir?	
22	____		22	A I'm senior vice-president regulation and	
23	____		23	strategic planning NV Energy.	
24	____		24	Q And your business address?	
25	____	01:39	25	A 6100 Neil Road, Reno, Nevada.	
Page 6			Page 8		
1	PURSUANT TO NOTICE, and on Tuesday, the 6th day of		1	Q Have you ever had your deposition taken before?	
2	September, 2016, at the hour of 1:37 p.m. of said day,		2	A No.	
3	at 100 West Liberty Street, Reno, Nevada, before me,		3	Q You understand that as we started the	
4	Janet Menges, a notary public, personally appeared SHAWN		4	deposition the court reporter swore you in. You're	
5	ELICEGUI.	01:39	5	under oath as you would be in a court of law or in a	
6	--oOo--		6	proceeding before the Public Utilities Commission?	
7			7	A Yes.	
8	SHAWN ELICEGUI		8	Q Do you feel as though you're capable to testify	
9	called as a witness, being first duly		9	today?	
10	sworn, was examined and testified	01:40	10	A Yes.	
11	as follows:		11	Q Not under a doctor's care or using any	
12			12	medication as a result of doctor's care?	
13	MS. DRAKULICH: Before we begin the deposition		13	A No.	
14	what I would like to do, first of all, note for the		14	Q Do you understand that for purposes of the	
01:38	15 record, if you don't already as the court reporter, it's	01:40	15	deposition you have to verbally answer, cannot shake	
16	1:37 p.m. on Tuesday, September 6th, 2016.		16	your head yes or no?	
17	I would like to begin by going around the room.		17	A Yes.	
18	Sara, we're going to start with you, since you're on the		18	Q Okay.	
01:38	19 phone, if you could give your name, for the record, and	01:40	19	And Mr. Elicegui, if you don't understand my	
20	the company on whose behalf you're participating today.		20	question I'm going to ask that you let me know that and	
21	MS. GERSEN: Sara Gersen for Vote Solar.		21	I will either rephrase it or restate it. Do you	
22	MS. DRAKULICH: Dave, let's begin at the end of		22	understand?	
23	the table with you.		23	A Yes.	
24	MR. BENDER: David Bender from Earthjustice		24	Q Okay.	
01:38	25 also for Vote Solar.	01:40	25	Can you tell me, please, how you prepared for	

Page 9		Page 11	
01:40	<p>1 your deposition today?</p> <p>2 A I read my testimony.</p> <p>3 Q Did you review any other materials besides your</p> <p>4 testimony?</p> <p>5 A I reviewed discovery responses. I reviewed</p> <p>6 Statement I. I reviewed Schedule I-40. I cursorily</p> <p>7 reviewed the testimony of Mike Cole, the testimony of</p> <p>8 Patrick Egan, the testimony of Laura Walsh, and the</p> <p>9 testimony of Tim Pollard.</p>	01:44	<p>1 pre-filed direct testimony in Docket 16-06006?</p> <p>2 A Yes.</p> <p>3 MS. DRAKULICH: Okay.</p> <p>4 If we could have that marked as the first</p> <p>5 exhibit to the deposition.</p> <p>6 (Exhibit 1 was marked.)</p> <p>7 BY MS. DRAKULICH:</p> <p>8 Q With regard to Ms. Walsh's testimony,</p> <p>9 Mr. EliceGUI, why did you review that testimony before</p>
01:41	<p>10 Q Now, you have just provided me a list of things</p> <p>11 that you reviewed prior to coming here, and I want to</p> <p>12 clarify for the record, you understand that we're here</p> <p>13 with respect to your testimony that has been filed in</p> <p>14 Docket 16-06006 before the Public Utilities Commission</p>	01:44	<p>10 coming here today?</p> <p>11 A Ms. Walsh reports to me and I refer to her</p> <p>12 testimony.</p> <p>13 Q And direct me to where in your testimony you</p> <p>14 refer to her testimony?</p>
01:41	<p>15 of Nevada; correct?</p> <p>16 A That's correct.</p> <p>17 Q And that is NV Energy's/Sierra Pacific Power</p> <p>18 Company's general rate case filing?</p>	01:44	<p>15 A Question and answer 21 on page 16 of my</p> <p>16 testimony.</p> <p>17 Q And did you review Ms. Walsh's testimony for</p> <p>18 the purpose of refreshing your recollection about the</p> <p>19 content of her testimony related to Q and A 21?</p>
01:41	<p>19 A Sierra Pacific's general rate case filing in</p> <p>20 2016.</p> <p>21 Q Each of the documents that you listed for us</p> <p>22 that you reviewed before coming here today, are each of</p> <p>23 those documents that exist in Docket 16-06006?</p>	01:45	<p>20 A I referred to Mrs. Walsh's testimony to confirm</p> <p>21 that she addresses directives 11 and 13 and directive</p> <p>22 15.</p> <p>23 Q And Mr. Pollard's testimony, why did you review</p> <p>24 that before coming here today?</p>
01:41	<p>24 A Yes.</p> <p>25 Q You reviewed the testimony of Mr. Egan;</p>	01:45	<p>24 that before coming here today?</p> <p>25 A Because I refer to Mr. Pollard in my testimony.</p>
Page 10		Page 12	
01:42	<p>1 correct?</p> <p>2 A Yes.</p> <p>3 Q Ms. Walsh?</p> <p>4 A Yes.</p> <p>5 Q Mr. Pollard?</p> <p>6 A Yes.</p> <p>7 Q And I did not -- did you review any other</p> <p>8 testimony?</p>	01:45	<p>1 Q Can you direct me to that?</p> <p>2 A Question and answer 26.</p> <p>3 Q And did you review Mr. Pollard's testimony for</p> <p>4 the purposes of refreshing your recollection with regard</p> <p>5 to question and answer 26?</p>
01:42	<p>9 A The testimony of Mr. Cole.</p> <p>10 Q Why did you review Mr. Egan's testimony before</p> <p>11 coming today?</p> <p>12 A Because my prepared written testimony refers to</p> <p>13 his testimony.</p>	01:46	<p>6 A I reviewed his testimony to confirm that he</p> <p>7 presents the result of the calculation that I reference</p> <p>8 in that question in his testimony.</p> <p>9 Q Did anyone help you prepare for your</p> <p>10 deposition?</p>
01:42	<p>14 Q And which sections of your testimony refer to</p> <p>15 his?</p> <p>16 A I refer to Mr. Egan in question and answer 17</p> <p>17 of my prepared direct testimony.</p> <p>18 Q And was the purpose of reviewing Mr. Egan's</p> <p>19 testimony to refresh your recollection about the</p>	01:46	<p>11 A Yes.</p> <p>12 Q Who was that?</p> <p>13 A I had preparation sessions with my counsel and</p> <p>14 other NV Energy employees.</p> <p>15 Q Okay.</p> <p>16 And you were asked to bring documents with you</p> <p>17 for purposes of this deposition. Have you brought</p> <p>18 those?</p>
01:43	<p>20 statements in your testimony in question and answer 17?</p> <p>21 A Yes.</p> <p>22 Q What I would like to do, I do have a copy of</p> <p>23 your testimony, Mr. EliceGUI, and just for purposes of</p> <p>24 completing the record I want you to take a look at this,</p>	01:46	<p>19 A Yes.</p> <p>20 Q And can you take those documents that your</p> <p>21 counsel has there and can you please explain to us what</p> <p>22 you brought today that you used in order to assist you</p> <p>23 with preparation or preparing your testimony in this</p> <p>24 case?</p>
01:43	<p>25 tell me if you recognize that as your testimony,</p>	01:46	<p>25 A We have a couple of items. First we have a</p>

Page 13		Page 15	
01:47	1 list of references to publicly available information. 2 These are citations to websites where items referenced 3 in my testimony can be found. 4 In addition we have six other items. First is 5 a copy of Statement H prepared by Ms. Mello. It 6 supports a calculation in my testimony. 7 Second is an excerpt of a spreadsheet that has 8 basic service charges, base tariff general rates, base 9 tariff energy rates, and other rate elements from 1984 10 projected through January of 2017. That is the basis of 11 a calculation in my testimony. 12 The third is a copy of a report referred to in 13 my testimony, Snapshot Report Electricity Prices dated 14 August 2015 Electricity Prices in Texas prepared by the 15 Texas Coalition for Affordable Power. 16 The fourth item is a memorandum prepared by 17 members of the regulation department. The memorandum 18 describes the process that we established to calculate a 19 regulatory liability, a regulatory liability I support 20 and sponsor and I believe it is Statement H-40 and 21 Statement I-40. 22 The fifth item is an e-mail from Sheryl Torrey 23 and Roger Halbakken to me supporting a calculation in my 24 testimony, an allocation of energy and balance market 25 benefits between Sierra Pacific Power Company and Nevada	01:51	1 the next exhibit to the deposition. 2 (Exhibit 2 was marked.) 3 BY MS. DRAKULICH: 4 Q Let's mark the Statement H prepared by Ms. 5 Mello as the next exhibit. 6 Mr. Elicegui, what I have behind tab 1 is 7 actually Statement H page 1 of 3 Mello, Statement I page 8 1 of 3 Franklin, and Statement I. Is that what was 9 intended to be behind tab 1? 10 A Apparently, yes. I'm mistaken. 11 MS. DRAKULICH: Okay. 12 If we could mark these three documents as next 13 in order in the deposition. 14 Number 3 will be Statement H 1 of 3 Mello. Can 15 I get those copies of your documents so we can hand them 16 to Mr. Elicegui as we go through them? Statement H 17 pages 1 of 3 Mello is Exhibit Number 3. 18 (Exhibit 3 was marked.) 19 MS. DRAKULICH: Number 4 will be Statement I 20 page 1 of 3 Franklin, and number 5 will be Statement I. 21 MS. ELLIOT: If I could make a suggestion, 22 those are three different years. You might rather than 23 use -- 24 MS. DRAKULICH: Ms. Elliot, I appreciate the 25 help, but if you could just confine yourself to
Page 14		Page 16	
01:49	1 Power Company. 2 The last item is a copy of a report entitled 3 The Future of Solar Energy, An Interdisciplinary MIT 4 Study also referenced in my testimony. 5 Q Let's begin with item number 1, which is a copy 6 of Statement H prepared by your co-worker Ms. Mello. 7 Do you have only one copy of that? 8 A No, I have multiple copies. 9 MS. DRAKULICH: Thank you, Beth. 10 MS. ELLIOT: Just a question on procedure. 11 Are you going to mark the subpoena or are you 12 going to mark these documents? 13 MS. DRAKULICH: I wasn't going to mark the 14 subpoena, but I was going to mark the documents. 15 MS. ELLIOT: Okay. 16 Then you will want a copy. That is, for the 17 record, a compilation, as Mr. Elicegui stated, of the 18 publicly available information that is cited to in his 19 testimony. We received an e-mail from Mr. Ledford on 20 Friday evening stating that in lieu of producing a 21 series of Commission orders, the NRS, the NAC that the 22 company could provide those citations with the specific 23 URL, and so that is what is marked or what is provided 24 in the spreadsheet that I handed you. 25 MS. DRAKULICH: Let's mark the spreadsheet as	01:53	1 objecting to questions that I ask. 2 MS. ELLIOT: So that the record is clear they 3 are not the same I twice. 4 MS. DRAKULICH: Thank you. 5 (Exhibit 4 was marked.) 6 (Exhibit 5 was marked.) 7 MS. DRAKULICH: Statement H page 1 of 3 Mello, 8 Exhibit 3, is for the certification period ending May 9 31st, 2016. 10 Exhibit 4, which is Statement I page 1 of 3 11 Franklin is for the certification period ended May 31st, 12 2013, and then Statement I is page -- Statement I page 1 13 of 3 Franklin for the certification period ending May 14 31st, 2010. 15 BY MR. DRAKULICH: 16 Q Mr. Elicegui, can you take us to the place in 17 your testimony where you utilize these exhibits to 18 perform a calculation? 19 A Yes. 20 Q Where is that in your testimony? 21 A Page 4, footnote 3. 22 Q And if you could explain to us how the Exhibits 23 3, 4 and 5 were utilized in the preparation of the 24 calculation that is referenced in footnote 3? 25 A So in footnote 3 I reference base tariff

Page 17		Page 19	
01:55	<p>1 general operation and maintenance expense and a</p> <p>2 calculation between 2016, 2013 and 2010.</p> <p>3 In addition to information found in these</p> <p>4 exhibits, which is the base tariff general O and M</p> <p>5 expense, I performed a calculation that results in a</p> <p>6 comparison of O and M expense over a six year period.</p> <p>7 Q Did you perform the calculation yourself or did</p> <p>8 you have Ms. Franklin or Ms. Mello perform it?</p> <p>9 A Actually I had Ms. Erickson perform the</p> <p>10 calculation.</p> <p>11 Q Who Ms. Erickson?</p> <p>12 A Judy Erickson, she works in the regulation</p> <p>13 department at NV Energy.</p> <p>14 Q And do you know whether or not you have</p> <p>15 provided the calculation that Ms. Erickson performed in</p> <p>16 discovery in this case?</p> <p>17 A I have not.</p> <p>18 Q Okay.</p> <p>19 If we could look at what is under tab 2 of the</p> <p>20 documents that you provided. I have two documents. One</p> <p>21 is a single 8 and a half by 11 sheet. At the top of it</p> <p>22 it says Schedule D-1 Domestic Service and prices per kWh</p> <p>23 and the other looks like an 11 by 17 document.</p> <p>24 A It's the same document.</p> <p>25 Q And you have enhanced it?</p>	01:58	<p>1 my testimony.</p> <p>2 Q You used the information in Exhibit 6 to</p> <p>3 prepare the chart, which is Elicegui Direct-1 on page 6</p> <p>4 of your testimony?</p> <p>5 A I used the information in the spreadsheet,</p> <p>6 which I actually created and is now maintained by the</p> <p>7 department, and a member of the regulation department</p> <p>8 pulled the data to prepare the chart shown on page 6,</p> <p>9 Chart Elicegui Direct-1.</p> <p>10 Q When you say the regulation department you're</p> <p>11 referring to the rates and regulation department at</p> <p>12 Sierra Pacific Power Company?</p> <p>13 A I'm referring to the rates and regulation</p> <p>14 department at Sierra Pacific Power Company and Nevada</p> <p>15 Power Company.</p> <p>16 Q You noted that there is information that is not</p> <p>17 in Exhibit 6. In discovery have you provided an updated</p> <p>18 version of Exhibit 6 with additional information in it</p> <p>19 to the extent it's available?</p> <p>20 A No.</p> <p>21 Q And Mr. Elicegui, the information that would be</p> <p>22 available to update Exhibit 6, would that be the</p> <p>23 information from April 1, 2016 and July 1, 2016?</p> <p>24 A It would be four pieces of information. April</p> <p>25 1, 2016 and that would be each of the rate elements that</p>
Page 18		Page 20	
01:56	<p>1 A Yes, we reprinted it for reading purposes.</p> <p>2 Q Can you tell me what you used this document for</p> <p>3 in the preparation of your testimony?</p> <p>4 A First there is a year's, 2016, worth of data</p> <p>5 that is not included on this spreadsheet.</p> <p>6 Q Say that again?</p> <p>7 A There's one year's worth of data as well as two</p> <p>8 months of projections that are not included on this</p> <p>9 spreadsheet and it's the rates that were effective April</p> <p>10 1, 2016, July 1, 2016, the rates that will become</p> <p>11 effective October 1, 2016, and the projection of the</p> <p>12 base tariff energy rate and the base tariff general rate</p> <p>13 changes that will become effective January 1, 2017.</p> <p>14 Q For what purpose did you use the information in</p> <p>15 Schedule D-1 Domestic Service?</p> <p>16 While you're looking for that I will ask the</p> <p>17 court reporter to mark the 11 by 17 version as the</p> <p>18 exhibit next in order which I show as 6.</p> <p>19 (Exhibit 6 was marked.)</p> <p>20 THE WITNESS: I used the information contained</p> <p>21 in that spreadsheet to prepare a chart, which is Chart</p> <p>22 Elicegui Direct-1.</p> <p>23 BY MS. DRAKULICH:</p> <p>24 Q On which page of your testimony?</p> <p>25 A Page 6 and to reach a conclusion on page 5 of</p>	02:00	<p>1 were in effect on that date. The rate elements that</p> <p>2 were in effect on July 1, 2016. The rate elements that</p> <p>3 will be in effect on October 1, 2016, including changes</p> <p>4 due to the annual deferred energy filing, and the rate</p> <p>5 elements that will be in effect, if this application is</p> <p>6 approved based on a fuel and purchased power forecast</p> <p>7 that was available to me at the time of this filing.</p> <p>8 Q When you say rate elements are you referring to</p> <p>9 the headings in the categories on Schedule D-1 that are</p> <p>10 customer charge, BTGR and BTER?</p> <p>11 A I'm referring to each of the rate elements,</p> <p>12 which includes the customer charge, the base tariff</p> <p>13 general energy rate, which is a volumetric rate, the</p> <p>14 base tariff energy rate, which is a volumetric rate, the</p> <p>15 TRED or the transfer of renewable energy development</p> <p>16 charge, which also is a volumetric rate, the renewable</p> <p>17 energy program rate or REPR, the universal energy</p> <p>18 charge, UEC, the deferred energy accounting adjustment,</p> <p>19 and the energy efficiency adjustment, together with an</p> <p>20 additional piece of information, which is the average</p> <p>21 usage from the rate effective periods for the D-1</p> <p>22 customer class.</p> <p>23 Q What is the importance of that information to</p> <p>24 this sheet?</p> <p>25 A I'm sorry, which piece of information?</p>

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02:01	<p>1 Q You said Exhibit 6 does not include the average</p> <p>2 usage rate for the -- excuse me, the average usage</p> <p>3 information for the rate effective period for the D-1</p> <p>4 class. Did I get that right?</p> <p>5 A Yes, that's correct.</p> <p>6 Q Why does that need to be included in this</p> <p>7 document?</p> <p>8 A It needs to be included in the document because</p> <p>9 the sum of the bill is the basic service charge</p> <p>10 multiplied by each of the volumetric charges.</p> <p>11 Q And you have not provided that additional</p> <p>12 information updating this document in discovery in this</p> <p>13 case?</p> <p>14 A Not in discovery in this case.</p> <p>15 MS. DRAKULICH: Let's look at the document that</p> <p>16 is under tab 3, if we could have this marked as the next</p> <p>17 exhibit to the deposition, which I believe is 7.</p> <p>18 (Exhibit 7 was marked.)</p> <p>19 BY MS. DRAKULICH:</p> <p>20 Q Mr. Elicegui, this is a report, a Snapshot</p> <p>21 Report called Electricity Prices in Texas. Take me to</p> <p>22 the reference in your testimony to the use of this</p> <p>23 document?</p> <p>24 A Page 11 of my prepared direct testimony. I</p> <p>25 excerpt a chart from this report and include it on page</p>	02:05	<p>1 understand the question.</p> <p>2 Q Let me cite from your testimony. You say on</p> <p>3 page 10, line 7, Nevada performs well on this metric,</p> <p>4 with the second lowest overall increase in residential</p> <p>5 electric prices over that 11-year period. In evaluating</p> <p>6 overall increases, whether they were the lowest or the</p> <p>7 highest, related to preparing this portion of your</p> <p>8 testimony did you review any other information besides</p> <p>9 the Texas report?</p> <p>10 A I did not review any other reports because this</p> <p>11 is the only report that I have found that compares</p> <p>12 increases in electric prices over a period of time.</p> <p>13 Q Did you review any other information about</p> <p>14 increases in electric rates?</p> <p>15 A Not increases in electric rates.</p> <p>16 Q Did you review any other information about</p> <p>17 increases in residential electric prices over the</p> <p>18 11-year period?</p> <p>19 A Not increases in residential electric prices.</p> <p>20 Q Did you review any other information regarding</p> <p>21 decreases in residential electric prices?</p> <p>22 A Not decreases in residential electric prices.</p> <p>23 Q Okay.</p> <p>24 Other than the Texas report, what other</p> <p>25 information did you review in preparing the testimony</p>
Page 22		Page 24	
02:03	<p>1 11.</p> <p>2 Q Does the discussion actually begin on page 10</p> <p>3 at line 3, I believe that Sierra is the lead into that</p> <p>4 paragraph?</p> <p>5 A The question begins on page 9, question 13, why</p> <p>6 is Sierra requesting that the Commission not change the</p> <p>7 electric division's core operations revenue requirement.</p> <p>8 The answer starts on line 20 of that page, continues on</p> <p>9 to page 10 with a chart appearing on page 11.</p> <p>10 Q Why did you use the Texas Coalition for</p> <p>11 Affordable Power in your testimony?</p> <p>12 A Because I state in my testimony that the report</p> <p>13 indicates that residential rates in the State of Nevada</p> <p>14 have had the second lowest decrease over the period of</p> <p>15 2012 through 2013.</p> <p>16 Q Did you review any other reports related to</p> <p>17 this subject matter before deciding to use the Texas</p> <p>18 report that is Exhibit 7?</p> <p>19 A No.</p> <p>20 Q Did you review any other information on this</p> <p>21 topic, in other words on the topic of electricity prices</p> <p>22 and how the utility fairs with regard to other utilities</p> <p>23 before deciding to use the Texas report in your</p> <p>24 testimony?</p> <p>25 A Utility prices or price increases? I don't</p>	02:06	<p>1 that you identified as beginning at Q and A 9, section</p> <p>2 II of your testimony through the end of that section?</p> <p>3 A By section do you mean answer to question 13?</p> <p>4 Q Yes, including question 13.</p> <p>5 A I'm sorry, I don't understand the question. Do</p> <p>6 you mean solely with response to question 13 or do you</p> <p>7 mean in section II of my testimony, which begins on page</p> <p>8 7 --</p> <p>9 Q Let's begin with --</p> <p>10 A -- and concludes on page 14?</p> <p>11 Q Let's begin with Q and A 13 in its entirety</p> <p>12 which begins on page 9, line 17 through page 11.</p> <p>13 A I reviewed no additional information regarding</p> <p>14 changes in electricity prices to answer question 13 of</p> <p>15 my testimony.</p> <p>16 Q With regard to any other information aside from</p> <p>17 Exhibit 7 that you might have reviewed, can you tell me</p> <p>18 what that is in preparation of the response that you</p> <p>19 provide in question and answer 13?</p> <p>20 A In direct connection with the preparation of</p> <p>21 this answer I did not review any information regarding</p> <p>22 changes in electric prices.</p> <p>23 As part of my job responsibility I review EIA</p> <p>24 information as well as EEI reports as well as other</p> <p>25 periodic bill reports on electricity prices.</p>

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02:08	<p>1 Q And was any of that information used in</p> <p>2 preparation of question and answer 13?</p> <p>3 A No.</p> <p>4 Q Was any of that information excluded as a</p> <p>5 result of the preparation of question and answer 13, in</p> <p>6 other words deemed not relevant?</p> <p>7 A Those reports don't assess changes in</p> <p>8 electricity prices.</p> <p>9 MS. DRAKULICH: Can we look at the information</p> <p>10 that you have produced under tab 4, which is entitled</p> <p>11 Docket No. 15-07041 and 15-07042 NEM Regulatory</p> <p>12 liability methodology, and if we could have that marked</p> <p>13 as next, which is number 8.</p> <p>14 (Exhibit 8 was marked.)</p> <p>15 BY MS. DRAKULICH:</p> <p>16 Q Mr. Elicegui, if you can direct us to where in</p> <p>17 your testimony you utilize the information in Exhibit 8?</p> <p>18 A I don't utilize the information in Exhibit 8 in</p> <p>19 my testimony, but I do refer to it in response to</p> <p>20 question 22, page 16 where I state after the Commission</p> <p>21 issued the private --</p> <p>22 Q Excuse me, line 23?</p> <p>23 A Line 23, after the Commission issued the</p> <p>24 private generation order, Sierra developed a process for</p> <p>25 recording the differences between the revenue Sierra</p>	02:12	<p>1 Q And she prepared it for everyone's review or</p> <p>2 was she assisted by other people?</p> <p>3 A She was assisted by other people and she</p> <p>4 prepared it for review by the team that ultimately</p> <p>5 adopted this process.</p> <p>6 Q And in this case you're making a specific</p> <p>7 request to the Commission to approve this methodology?</p> <p>8 A Making a specific request for the Commission to</p> <p>9 approve the result of the methodology, which is a</p> <p>10 regulatory liability at the time of the filing of</p> <p>11 \$227,000 and at the time of certification \$267,000, I</p> <p>12 believe, which will be included in rate base and</p> <p>13 amortized, if our proposal is accepted, over a three</p> <p>14 year period.</p> <p>15 Q And you referred the regulatory liability, you</p> <p>16 provided amounts in the range of just over \$200,000.</p> <p>17 Those are the attachments that you in your testimony say</p> <p>18 that you sponsor that are H-CERT-40; correct?</p> <p>19 A The first is H-CERT-40, which was filed June</p> <p>20 6th with the filing. The second is I-CERT-40, which was</p> <p>21 filed with the revenue requirement certification filing.</p> <p>22 Q Define regulatory liability for me?</p> <p>23 A Regulatory liability is an amount maintained in</p> <p>24 account 254075.</p> <p>25 Q Why is it referred to as a liability?</p>
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02:10	<p>1 received from private generation customers after January</p> <p>2 1, 2016 and the revenue that Sierra would have received</p> <p>3 under the private solar generation credit program that</p> <p>4 existed before January 1, 2016.</p> <p>5 I continue, the calculation is made in two</p> <p>6 steps and is performed on a monthly basis, at the</p> <p>7 customer class level, by members of the regulation team,</p> <p>8 and then I describe the next two steps. I'm referring</p> <p>9 to this process memo when I say Sierra developed a</p> <p>10 process.</p> <p>11 Q Exhibit 8?</p> <p>12 A This memo being Exhibit 8.</p> <p>13 Q And then you go on to say the first step in the</p> <p>14 process is the calculation of revenue using the private</p> <p>15 generation rates currently set forth in the statement of</p> <p>16 rates. Second, billing determinants are used to</p> <p>17 calculate the revenue that Sierra would have received</p> <p>18 under the prior regime, and then what you're telling me,</p> <p>19 Mr. Elicegui, is if I review Exhibit 8 in this case, the</p> <p>20 NEM regulatory liability methodology, that will explain</p> <p>21 steps one and two?</p> <p>22 A Yes.</p> <p>23 Q Okay.</p> <p>24 Who prepared Exhibit 8?</p> <p>25 A A team led by Erica McLean.</p>	02:13	<p>1 A It can equally be referred to as a regulatory</p> <p>2 asset. The notion because it's in account 254 is it</p> <p>3 represents an amount, in this case, that acts as an</p> <p>4 offset to rate base and when amortized is amortized to</p> <p>5 revenue otherwise reducing the revenue requirement for</p> <p>6 the company.</p> <p>7 Q So regulatory asset and regulatory liability</p> <p>8 are you saying can be used interchangeably?</p> <p>9 A Typically and commonly a regulatory asset one</p> <p>10 thinks of an asset, which has a positive number.</p> <p>11 Regulatory liability one thinks as a negative number.</p> <p>12 However, they are both functionally the same for</p> <p>13 accounting purposes just depends on where they reside on</p> <p>14 the balance sheet and whether there's a debit or a</p> <p>15 credit balance.</p> <p>16 Q And do I understand it correctly, Mr. Elicegui,</p> <p>17 the amount that you reference that is in H-CERT-40 and</p> <p>18 I-CERT-40 in excess of \$200,000 is an amount that would,</p> <p>19 pursuant to the utility company's proposal, be allocated</p> <p>20 to customers based on a methodology that the utility</p> <p>21 company has developed?</p> <p>22 A I wouldn't say allocated to customers. I will</p> <p>23 do my best to answer the question.</p> <p>24 The utility company, NV Energy in this case,</p> <p>25 has calculated a specific amount in the manner described</p>



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02:15	1 in Exhibit 8. That amount currently resides on NV 2 Energy's balance sheet in account 254075 for the 3 purposes of calculating revenue requirement. It serves 4 as an offset to rate base. It reduces the rate base, 5 which therefore reduces the revenue requirement. 6 Likewise the company proposes that the amount 7 be amortized over a three year period. When it is 8 amortized, the amount is amortized effectively appearing 9 as revenue to the utility company, which offsets again 10 the need for revenue requirement because a change in the 11 revenue requirement is based off of present rate revenue 12 and proposed rate revenue. 13 Q Thank you. 14 Let's look at the information that you have 15 provided under tab 5. It's the e-mail printed by Ms. 16 Janice Baldarelli of NV Energy from Sheryl Torrey to 17 Roger Halbakken and Shawn Elicegui cc'd to Raddie 18 Bristol. Do you see that? 19 A Yes. 20 MS. DRAKULICH: If we could have this marked as 21 9. 22 (Exhibit 9 was marked.) 23 BY MS. DRAKULICH: 24 Q Mr. Elicegui, if you can explain to us how this 25 relates or is relative to the testimony you filed in	02:20	1 (Exhibit 10 was marked.) 2 THE WITNESS: I quote from and cite to the 3 study in response to question 32 of my prepared 4 testimony on page 22, lines 12 through 16. 5 BY MS. DRAKULICH: 6 Q Are there any other places in your testimony, 7 Mr. Elicegui, where you relied on the content of Exhibit 8 10, the MIT study? 9 A No. 10 Q Okay. 11 Mr. Elicegui, I note from Exhibit Elicegui 12 Direct-1 that you have an undergraduate degree in 13 political science and international affairs and that you 14 have a juris doctorate from the University of California 15 at Davis; correct? 16 A Yes. 17 Q Do you have an engineering or a physics degree 18 or have you taken courses in the subject of engineering 19 or physics? 20 A I do not have an engineering or physics degree. 21 Q Have you taken courses in engineering or 22 physics or classes? 23 A Not engineering. 24 Q And physics? 25 A Physics, yes.
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02:17	1 this case? 2 A I mention the calculation contained in this 3 e-mail on page 13, question and answer 16 of my 4 testimony, lines 18 through 20. 5 Q And this is, if I'm correct and correct me if 6 I'm not, this is the information that was provided by 7 your co-workers that supports the reference to the 1.2 8 million dollars of gross benefits from NV Energy's 9 participation in the energy imbalance market since 10 December of 2015? 11 A This e-mail supports the allocation of total 12 benefits, which are 4.5 million dollars, actually 4.6 of 13 which 1.2 is allocated to Sierra, the remaining being 14 allocated to Nevada Power Company pursuant to the joint 15 dispatch agreement. 16 Q Can I have just one moment, please? 17 Then under tab 5 you have another document that 18 you used in the preparation of your testimony. I'm 19 sorry, tab 6. This is a study entitled The Future of 20 Solar Energy, An Interdisciplinary MIT Study; correct? 21 A Yes, that's correct. 22 Q And can you direct us to those portions of your 23 testimony that you developed that relied upon the 24 information in this study, and before we do that can we 25 mark this as 10, please.	02:21	1 Q And would that just be in the ordinary course 2 of obtaining your undergraduate degree? 3 A No. 4 Q When did you take the physics courses? 5 A High school. 6 Q Do you have electric system operations 7 experience? 8 A If you define electric system operations 9 experience as the bulk electric system or the 10 distribution system, no. 11 Q And your answer there included the distribution 12 system as well? 13 A That's correct. 14 Q In your testimony you note that you were 15 appointed the senior vice-president, regulation and 16 strategic planning position in February of 2015, and you 17 hold that job currently; correct? 18 A Correct. 19 Q Who do you report to at NV Energy? 20 A Paul Caudill. That's C-a-u-d-i-l-l. 21 Q And who does Mr. Caudill report to? 22 A Mr. Caudill is the CEO and chief executive 23 officer of NV Energy. As with any CEO he reports to the 24 board of directors. 25 Q And who do you supervise, who works under your

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02:23	<p>1 direction?</p> <p>2 A There are 54 employees in the regulation and</p> <p>3 long-term resource planning department, seven of whom, I</p> <p>4 believe, are direct reports to me.</p> <p>5 Q And do you mind telling me the names of those</p> <p>6 seven direct reports, please?</p> <p>7 A James Doubek, vice-president long-term resource</p> <p>8 planning.</p> <p>9 Bill Branch, director -- I forget Bill's title.</p> <p>10 Jack McGinley or John P. McGinley, executive</p> <p>11 regulatory and legislative strategy.</p> <p>12 Patricia Franklin, manager FERC revenue</p> <p>13 requirement.</p> <p>14 Laura Walsh, director of regulatory pricing.</p> <p>15 Trevor Dillard, manager regulatory services.</p> <p>16 Six direct reports, not seven.</p> <p>17 Q You refer to and we have discussed thus far --</p> <p>18 or excuse me, you referred to and we discussed that</p> <p>19 reference to Mr. Pollard's testimony in your direct</p> <p>20 testimony in this case, and you have stated that you</p> <p>21 reviewed Mr. Pollard's testimony before coming here. I</p> <p>22 will refer you to question and answer 26 of your</p> <p>23 testimony.</p> <p>24 This excess energy credit rate that you refer</p> <p>25 to in question and answer 26 of your testimony refers to</p>	02:26	<p>1 long-term avoided cost and line losses associated with</p> <p>2 the 2017 period.</p> <p>3 Q When you say he resets the target what do you</p> <p>4 mean?</p> <p>5 A So the target is the rate that would be</p> <p>6 achieved after steps at the end of a 12-year laddering</p> <p>7 period. By adjusting the targets to the 2017 long-term</p> <p>8 avoided cost, which increases the excess energy rate</p> <p>9 target, that translates into a different energy --</p> <p>10 excess energy credit for the first period of the</p> <p>11 laddering approach.</p> <p>12 Q And the first period is what?</p> <p>13 A January 1, 2016, 2017 and 2018 with a change</p> <p>14 occurring on January 1, 2019.</p> <p>15 Q And when you say he recommends a change, and I</p> <p>16 believe you said an increase in the excess energy rate,</p> <p>17 is that an increase over what the Commission ordered in</p> <p>18 Dockets 15-07041 and 42?</p> <p>19 A He uses the 2017 long-term avoided cost which</p> <p>20 is a higher average hourly rate. I do not know how it</p> <p>21 translates into the excess energy credit proposed in</p> <p>22 this proceeding.</p> <p>23 Q Okay.</p> <p>24 How is the long-term avoided cost that he used</p> <p>25 to set the excess energy rate developed by NV Energy?</p>
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02:25	<p>1 the excess energy credit rate for net metering</p> <p>2 customers; correct?</p> <p>3 A Yes.</p> <p>4 Q If you could, please, summarize Mr. Pollard's</p> <p>5 testimony regarding the utility company's proposal in</p> <p>6 this case on the excess energy credit rate?</p> <p>7 A Mr. Pollard performs one portion of the rate.</p> <p>8 He calculates the excess energy credit rate, which is</p> <p>9 based off of the long-term avoided cost adjusted for</p> <p>10 line losses.</p> <p>11 Q And what is the recommendation he is making in</p> <p>12 this case with regard to the excess energy rate for net</p> <p>13 metering customers?</p> <p>14 A He is recommending a change to the excess</p> <p>15 energy credit rate.</p> <p>16 Q And what change is he recommending?</p> <p>17 A He recommends a change to using the 2017</p> <p>18 long-term avoided cost and then an adjustment in his</p> <p>19 schedule to --</p> <p>20 Q I'm sorry, there's a little bit of background</p> <p>21 noise. Could you speak up a little bit, Mr. Elicegui?</p> <p>22 A Certainly.</p> <p>23 Mr. Pollard -- First the excess energy credit</p> <p>24 rate is based on a ladder that changes over time. So</p> <p>25 Mr. Pollard reset the target to the 20 -- using the 2017</p>	02:28	<p>1 A It's developed pursuant to statute and</p> <p>2 regulation.</p> <p>3 Q The governing statute and regulation, how much</p> <p>4 discretion do they provide to the utility company</p> <p>5 regarding the inputs?</p> <p>6 A I don't understand the question, so I will</p> <p>7 explain how we prepare and file the long-term avoided</p> <p>8 cost.</p> <p>9 The long-term avoided cost methodology is</p> <p>10 presented in an integrated resource plan. The</p> <p>11 regulation specifies a means by which the utility</p> <p>12 proposes a long-term cost methodology. The Commission</p> <p>13 reviews that long-term cost methodology and then</p> <p>14 approves a long-term avoided cost rate.</p> <p>15 Q In the case of the long-term avoided cost, you</p> <p>16 said the 2017 long-term avoided cost used by Mr. Pollard</p> <p>17 in this case, what is the long-term avoided cost based</p> <p>18 on? Is it based on sales at a trading hub, is it based</p> <p>19 on a combined cycle natural gas plant, what's it based</p> <p>20 on?</p> <p>21 A The long-term avoided cost approved by the</p> <p>22 Commission in this case approved in Docket 15-07004 and</p> <p>23 the companion filing for Sierra Pacific, which is</p> <p>24 actually the long-term avoided cost that we used, which</p> <p>25 was 15-08001, is a product of marginal energy costs,</p>

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02:30	1 capacity and the results of a request for proposals in a 2 competitive process. 3 Q In the case of the 2017 long-term avoided cost 4 that was used by the utility company in this case, which 5 RFP results were used? 6 A I don't know. 7 Q What are the options? In other words, which 8 RFPs were issued by the utility company that might be 9 the options for inclusion? 10 A The long-term avoided cost was approved by the 11 Commission in 15-08001. 08 stands for August. 011 is 12 the 11th filing made in August, and the first number or 13 the first two digits, 15, are the year. So the filing 14 was made August -- the 11th filing in August of 2015. 15 The preparation of the filing would have 16 started in January or February of 2015. So the results 17 available to the company would have been the 2014 and 18 2015 request for renewable proposals, which were both 19 issued in January of 2015. 20 Q Were they issued by Sierra Pacific or Nevada 21 Power Company? 22 A Nevada Power Company doing business as NV 23 Energy. 24 Q And were they renewable specific? 25 A They were requests for renewable energy	02:34	1 the results of an RFP. Do you recall that? 2 A Yes. 3 Q And then I asked you which -- I asked you 4 several questions about the RFP, and my understanding is 5 that the RFPs on which the 2017 long-term avoided cost 6 were based are the RFPs 2014 that produced the Boulder 7 Solar project as the winning bidder and the 2015 RFP 8 that produced First Solar as the winning bidder. Is 9 that not correct? 10 A That is correct. 11 Q In this case is the utility company 12 recommending that the Commission increase or decrease 13 the excess energy rate that was ordered in Dockets 14 15-07041 and 42? 15 A I don't know. I can't recall. 16 Q In your testimony you talk about -- Let me go 17 back to long-term avoided cost for a moment. What is 18 the capped long-term avoided cost that the utility 19 company uses in contrast to the uncapped long-term 20 avoided cost, what is the difference? 21 A The capped is the approved rate. 22 Q What do you mean by the approved rate? 23 A The approved long-term avoided cost is the 24 avoided cost long-term accepted and approved by the 25 Commission as the utility's long-term avoided cost rate
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02:32	1 proposals, yes. 2 Q And which bid was the winning bid in that RFP? 3 A Well, there were two. 4 The winning bid in the first RFP, which was the 5 2014 RFP reissued in January of 2015 was a project known 6 as Boulder Solar. 7 Q Polar Solar? 8 A Boulder Solar. 9 Q Boulder Solar, is this the Sun Power project? 10 A I don't know the developer. 11 The winning proposal in the 2015 RFP was a 12 First Solar project known as Playa II. Playa is 13 P-I-a-y-a. 14 Q So just to clarify, Mr. EliceGUI, the 2017 15 long-term avoided cost that was used to develop the 16 excess energy rate by Sierra Pacific Power Company in 17 Docket 16-06006 was based on the results of the Nevada 18 Power Company renewable specific RFPs in 2014 and 2015? 19 A No. 20 Q Okay. 21 What was the 2017 long-term avoided cost -- Let 22 me back up. 23 I asked you how the long-term avoided cost was 24 developed. You said, as I understood it, it was the 25 product of the marginal energy cost, the capacity, and	02:35	1 pursuant to PURPA. 2 Q What is the uncapped? 3 A The uncapped is, and I don't use the terms. I 4 have used the terms capped and uncapped, but I think one 5 is approved and one is modeled. 6 The modeled rate is the combination of the 7 marginal energy cost and capacity and then it is 8 compared to the results of an RFP to determine what the 9 long-term avoided cost rate is. 10 Q What does it mean it's compared to? 11 A So you take the marginal energy cost and for 12 three months out of the year you add to it capacity, 13 which is based on a Kw month, converted to a megawatt 14 hour or per kilowatt hour basis and applied to or added 15 to the marginal energy cost for a 16-hour period during 16 each of those three months, which are June -- sorry, 17 July, August and September, and then the two results 18 that the product of those two are compared to the price 19 of the next best bid in an RFP, and the long-term 20 avoided cost is the lower of the two pursuant to the 21 Commission's regulation. 22 Q In developing the excess energy rate -- Let me 23 step back. 24 Mr. EliceGUI, you're aware of the eleven 25 criteria that were identified by the Commission in the

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02:38	<p>1 modified final order in Dockets 15-07041 and 42 where</p> <p>2 the Commission identified the eleven criteria for</p> <p>3 evaluation in future Commission proceedings relative to</p> <p>4 excess energy?</p> <p>5 A Yes.</p> <p>6 Q Okay.</p> <p>7 And I've reviewed a lot of the discovery in the</p> <p>8 case and noted discovery where you were asked about --</p> <p>9 by staff you were asked about the incorporation of those</p> <p>10 criteria into the excess energy calculation.</p> <p>11 Do you recall responding to those discovery</p> <p>12 requests?</p> <p>13 A I recall responding to discovery requests from</p> <p>14 staff.</p> <p>15 Q So while in this case the utility company has</p> <p>16 made -- I want to refer you now to Q and A 32 of your</p> <p>17 testimony.</p> <p>18 While in this case the utility company has done</p> <p>19 an analysis with regard to the excess energy rate, in Q</p> <p>20 and A 32 of your testimony you say you have not done --</p> <p>21 The question that is asked is since the Commission</p> <p>22 issued the private generation order has Sierra</p> <p>23 quantified additional costs and benefits associated with</p> <p>24 the integration of private solar and other distributed</p> <p>25 energy resources. You say no, not yet, do you see that,</p>	02:41	<p>1 Nevada; correct?</p> <p>2 A I'm aware that E3 updated the 2014 report which</p> <p>3 uses five tests to assess costs and benefits of specific</p> <p>4 programs and was released on August 17th, 2016.</p> <p>5 Q You've reviewed that report, have you not?</p> <p>6 A I have reviewed the executive summary of the</p> <p>7 report.</p> <p>8 Q You have not read the report?</p> <p>9 A I have not read the entire report.</p> <p>10 Q Can you tell me if the utility company, if you</p> <p>11 know, if you anticipate supporting or using that report</p> <p>12 in this case to address the follow-up that might</p> <p>13 logically follow your response in Q and A 32, in other</p> <p>14 words information may have been generated now regarding</p> <p>15 the additional costs and benefits associated with the</p> <p>16 integration of private solar and other distributed</p> <p>17 energy resources?</p> <p>18 MS. ELLIOT: I would object to the question as</p> <p>19 calling for a glimpse into the company's litigation</p> <p>20 strategy and that glimpse is not permitted under the</p> <p>21 Rules of Professional Responsibility and I would ask --</p> <p>22 I would assert the privilege over the answer to that</p> <p>23 question and I would ask Mr. Elicegui not to respond.</p> <p>24 ///</p> <p>25 BY MS. DRAKULICH:</p>
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02:39	<p>1 and then you go on to provide a substantive answer?</p> <p>2 A Yes.</p> <p>3 Q Okay.</p> <p>4 I note in your answer you -- Well, since the</p> <p>5 time of filing of this testimony, which I believe was</p> <p>6 June 6th of this year, has the utility company gone any</p> <p>7 further down the road of trying to quantify the</p> <p>8 additional costs and benefits associated with the</p> <p>9 integration of private solar and other distributed</p> <p>10 energy resources?</p> <p>11 A I'm not aware of all of the activity of the</p> <p>12 company.</p> <p>13 Q Have you undertaken review of information in</p> <p>14 your capacity as an officer at NV Energy relative to</p> <p>15 this topic?</p> <p>16 A This topic being defined as quantifying</p> <p>17 additional costs and benefits associated with the</p> <p>18 integration of private solar and other distributed</p> <p>19 energy resources?</p> <p>20 Q Yes.</p> <p>21 A I have not reviewed any.</p> <p>22 Q Now, you are aware that the E3 study that was</p> <p>23 the -- Let me rephrase the question.</p> <p>24 You're aware that E3 has generated a study that</p> <p>25 was recently released relative to net metering in</p>	02:42	<p>1 Q Mr. Elicegui, you have reviewed the executive</p> <p>2 summary of the updated E3 report; correct?</p> <p>3 A Yes.</p> <p>4 Q From your review of the updated summary are you</p> <p>5 able to determine whether or not it addresses a</p> <p>6 quantification of additional costs and benefits</p> <p>7 associated with the integration of private solar and</p> <p>8 other distributed energy resources?</p> <p>9 A It makes assumptions about costs and benefits</p> <p>10 associated with the integration of private solar</p> <p>11 resources.</p> <p>12 Q When you say it makes assumptions, what</p> <p>13 assumptions are those?</p> <p>14 A There is a base case that has an assumption of</p> <p>15 a specific amount of avoided distribution investment</p> <p>16 associated with the installation of private generation</p> <p>17 resources. The base case was the sensitivity case in</p> <p>18 the 2014 study.</p> <p>19 Q Have you reviewed other materials aside from</p> <p>20 the updated E3 study since the filing of your testimony</p> <p>21 on June 6th that quantify additional costs and benefits</p> <p>22 associated with the integration of private solar and</p> <p>23 other distributed energy resources?</p> <p>24 A Yes.</p> <p>25 Q What are those?</p>

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02:44	<p>1 A I have reviewed a draft response to a study prepared by SolarCity and the NRDC.</p> <p>3 Q What do you mean by a draft response?</p> <p>4 A A response that is currently in draft form.</p> <p>5 Q When you say a draft response, do you mean a draft study, a draft -- is it a response to a data request, what do you mean by a draft response?</p> <p>8 A It is a white paper that responds currently in draft form.</p> <p>10 Q In discovery SolarCity provided the utility company with the populated model for the SolarCity/NRDC white paper that you have referred to. Have you had an opportunity to review that model?</p> <p>14 A No.</p> <p>15 Q Regarding the E3, the updated E3 study that we have been discussing here, when did you first become aware that the study was going to be -- the updated study was going to be conducted?</p> <p>19 A When I was copied on an e-mail from Anne-Marie Cuneo asking the company to provide information to E3 necessary to update the study.</p> <p>22 Q And I know you provided some information in response to a data request SC-NVE-26. Is that e-mail contained in that response, do you know?</p> <p>25 A To the best of my recollection, yes.</p>	02:47	<p>1 legislators asking the Commission to complete an update of the study.</p> <p>3 Q Is that letter that is on the Commission's website the first notice that you received regarding the fact that an update had been requested?</p> <p>6 A In time, no, because Ms. Cuneo's e-mail predated that letter, which was posted on August 17th.</p> <p>8 Q Was Ms. Cuneo's e-mail the first information that you received regarding the fact that there was an interest in updating the E3 study?</p> <p>11 A Yes.</p> <p>12 Q Okay.</p> <p>13 Do you know of any other individuals at NV Energy that may have learned that the E3 study was going to be updated sooner than your receipt of the e-mail from Ms. Cuneo?</p> <p>17 A Could you repeat the question?</p> <p>18 Q Do you know of any other individuals who learned sooner than the date of the e-mail, Ms. Cuneo's e-mail, other NV Energy employees -- I'm going to restate that.</p> <p>22 You received an e-mail from Ms. Cuneo in June of 2016 regarding the updated E3 study?</p> <p>24 A Yes.</p> <p>25 Q Are you aware of any NV Energy employees who</p>
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02:46	<p>1 Q What is the date of that e-mail, do you remember, month?</p> <p>3 A I don't recall.</p> <p>4 Q Not even the month?</p> <p>5 A I believe it was June 2016.</p> <p>6 Q Did you have a follow-up conversation with Ms. Cuneo after receiving that e-mail?</p> <p>8 A Not about that e-mail.</p> <p>9 Q Did you have a follow-up conversation with her about the updated -- about updating the E3 study?</p> <p>11 A No.</p> <p>12 I do refer to -- with the exception of the one phone call that I referred to in that response, which occurred, I believe, in August asking about the status of that update.</p> <p>16 Q She asked you about the status or you asked her about the status?</p> <p>18 A I asked her about the status of the update as specified in the response.</p> <p>20 Q To the best of your knowledge, Mr. Elicegui, what is your understanding about who requested that the updated E3 study be conducted?</p> <p>23 A I don't have a view of who requested that is independent of the correspondence on the Commission's website where there appears to be a letter from two</p>	02:49	<p>1 had information about the updated E3 study before that, before receiving Ms. Cuneo's e-mail?</p> <p>3 A I'm not aware of any.</p> <p>4 Q What about NV Energy consultants who are not employees, but who have been retained by contract?</p> <p>6 A I'm not aware of any.</p> <p>7 MS. DRAKULICH: I would like to discuss with you, Mr. Elicegui, the utility company's original response to SolarCity-26, the data request, and if I could have this marked as the next exhibit, please.</p> <p>11 (Exhibit 11 was marked.)</p> <p>12 BY MS. DRAKULICH:</p> <p>13 Q Mr. Elicegui, you have before you a copy of a data request that was issued by SolarCity, SC 26 to NV Energy and the response. My understanding is as of 8:00 o'clock this morning the response was updated, but I would like to talk to you about the initial response.</p> <p>18 Can you turn to the table that is in the DR, in the data response. It's in the middle of paragraph 2 of the response. Paragraph 2 reads on June 9th, 2016 NV Energy sent E3 a final transmittal of input data. The following excerpts list all of the files sent to E3 in connection with the August 2016 update.</p> <p>24 Did I read that correctly?</p> <p>25 A Yes.</p>

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02:51	1 Q Below that in a table are 20 files, the names 2 are excerpts as they are referred to in the DR, files 3 sent to E3. Do you see that? 4 A No. 5 Q Can I see the version of the response that you 6 have? 7 A This? 8 Q Yes, that. Can you see the 20 files there, 9 numbers 1 through 20? 02:51 10 A I see 20 entries, but under the column E I see 11 file names. 12 Q Okay. 13 A And some do not have entries. Some items do 14 not have entries under column E. 02:51 15 Q Mr. Elicegui, did you review the information 16 contained in these files before they were sent to E3? 17 A Did I? 18 Q Yes, did you? 19 A No. 02:51 20 Q Did you supervise at all the delivery of these 21 e-mails to E3? 22 A I asked Mr. Doubek, a vice-president in the 23 organization, to supervise the delivery of files to E3 24 and Mr. Doubek reports to me. 02:52 25 Q At any time did you have conversations with	02:54	1 Q Mr. Elicegui, if I could direct your attention 2 to page 32 of Exhibit 12. 3 A Okay. 4 Q Table 11 on that page is entitled avoided cost 5 components and data sources. Do you see that? 6 A Yes, I do. 7 Q On the left side of the table components are 8 listed and on the right side description. Do you see 9 that? 10 A Yes. 11 Q The last component on page 32 is system 12 capacity. I would like you just to read that section to 13 yourself regarding the description of system capacity. 14 It spills over onto the next page, which is page 33. 15 A Okay. 16 Q In this table, system capacity, the entry 17 begins marginal cost of meeting system peak loads. Did 18 I read that correctly, the first line in the 19 description? 20 A Yes. 21 Q And then it goes on to discuss system capacity 22 is noted by the component. The last two lines say the 23 annualized capacity value is grossed up to include 24 transmission level line losses and allocated to 25 individual hours using hourly normalized loss of load
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02:52	1 representatives from E3 about updating the E3 study? 2 A No. 3 Q I want to direct your attention to file number 4 19 or let me -- it's line 22, but it looks like file 5 number 19. It says LOLP to complete 14 and 11 above. 6 Do you see that? 7 A Yes. 8 Q And then as you noted in column E there's a 9 file name and it says E3 LOLP - 09JUN16XLSX. Do you see 02:53 10 that? 11 A Yes, I do. 12 Q Do you know what years that LOLP or loss of 13 load probability data spanned that was provided in file 14 number 19? 02:53 15 A I do not. 16 Q Do you have a copy of the E3 study with you? 17 A No. 18 MS. DRAKULICH: Can we have this marked as 12. 19 (Exhibit 12 was marked.) 02:53 20 MR. BENDER: This is the August 2016? 21 MS. DRAKULICH: This is dated August -- This 22 Exhibit Number 12 is the Nevada Net Energy Metering 23 Impacts Evaluation 2016 Update, August 2016 from Energy 24 Environmental Economics. 02:54 25 BY MS. DRAKULICH:	02:57	1 probability (LOLP). 2 Next sentence source: Annualized cost of 3 system capacity and hourly -- excuse me, system capacity 4 and annual hourly LOLPs from NV Energy. LOLPs were 5 provided for years 2017 to 2046. 6 Do you see that? 7 A Yes, I see that. 8 Q Do you have any reason, Mr. Elicegui, to 9 dispute the information in the report that the utility 10 company provided loss of load probabilities to Energy 11 Environmental Economics for the years 2017 through 2046 12 as stated in this study? 13 A I have no basis to confirm or dispute this 14 statement. 15 Q I want to go back to the e-mail that you 16 received from Ms. Cuneo. Tell me again what the e-mail 17 -- what the subject of the e-mail was? 18 A My recollection is she was asking me to assist 19 in obtaining information that E3 needed to complete an 20 update of the study. 21 Q What correspondence, either written, verbal or 22 otherwise, occurred with Ms. Cuneo after that with you? 23 A Six or seven e-mails that I believe were 24 provided in response to SolarCity's discovery request on 25 which I was either copied. They may have been from

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02:59	1 Anne-Marie to me or they may have been from Anne-Marie	1	conference call.
	2 or to Anne-Marie from somebody on our team.	2	Q When is the first time that you saw the updated
	3 Q For the record when you say Anne-Marie you're	3	E3 study?
	4 specifically addressing Ms. Cuneo?	4	A August 17th, the day I downloaded it from the
	5 A I do mean Ms. Cuneo.	5	website.
02:59	6 Q Generally describe what the subject of the	6	Q And prior to that time you had not seen any
	7 e-mails was?	7	drafts of the study, any drafts of sections of the
	8 A The subject of the e-mails was information	8	study?
	9 necessary to update the E3 study.	9	A That's correct.
	10 Q And they obviously led to the utility company	10	Q Do you want to take a break, Mr. Elicegui?
02:59	11 contacting E3 and providing the information that is	11	A I'm fine.
	12 addressed in Data Request SolarCity 26?	12	MS. ELLIOT: Okay.
	13 A I believe I sent an e-mail to Mr. Doubek asking	13	BY MS. DRAKULICH:
	14 him to arrange a conference call and to respond to Ms.	14	Q Mr. Elicegui, what is EEI? Are you familiar
	15 Cuneo's request.	15	with the organization EEI?
03:00	16 Q Once you received Ms. Cuneo's original e-mail,	16	A Yes, it is the Edison Electric Institute.
	17 which you testified is the first information you	17	Q And is a utility company like NV Energy a
	18 received about the updated E3 study, who did you, aside	18	member of EEI?
	19 from NV Energy personnel now, setting aside all of your	19	A NV Energy is a member of EEI.
	20 co-workers, who else did you have discussions with about	20	Q Is that a membership that involves the payment
03:00	21 the updated E3 study?	21	of fees?
	22 A Aside from NV Energy co-workers?	22	A I don't know, but I assume so.
	23 Q Yes.	23	Q Do you know who David Owens is?
	24 A Probably my wife, but that's it.	24	A Yes.
	25 Q Aside from providing the inputs to the study,	25	Q Who is he?
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03:00	1 the files as reflected in SolarCity 26, which is Exhibit	1	A Mr. Owens is a senior vice-president at EEI.
	2 11, do you know if NV Energy provided any other	2	Q How do you know Mr. Owens?
	3 comments, direction -- excuse me, any other direction to	3	A He appeared with Ralph Cavanaugh at a
	4 E3 regarding the updated study?	4	discussion at the University of Idaho utility executive
	5 A Only that which is indicated in the	5	education course. It's a three day course in Coeur
03:01	6 correspondence.	6	D'Alene, Idaho and I attended I believe in 2013,
	7 Q Okay.	7	possibly '14. I've also spoken to Mr. Owens at least
	8 Do you know if NV Energy met with E3 --	8	once or twice.
	9 A Yes.	9	Q Was the subject of either of those
	10 Q -- regarding the updated study?	10	conversations regarding net metering?
03:01	11 A Yes.	11	A The discussion he gave with Mr. Cavanaugh in
	12 Q On how many occasions did they meet?	12	2013 was on a wide ranging -- a number of issues related
	13 A There was one or two phone conferences	13	to the industry and it may have included net metering.
	14 referenced in that correspondence.	14	Q Have you personally spoken to him about net
	15 Q They were only phone conferences?	15	metering?
03:01	16 A To the best of my knowledge, yes.	16	A No.
	17 Q And what was the subject of the phone	17	Q Was the meeting that you attended where
	18 conferences, if you know?	18	Mr. Cavanaugh and Mr. Owens spoke an EEI meeting?
	19 A The transmittal of data. I didn't participate	19	A No.
	20 in those phone conferences so my knowledge is based on	20	Q Have you ever attended an EEI meeting?
03:01	21 the e-mails that we delivered to you.	21	A No.
	22 Q If I look at those e-mails and the	22	Q You said you had one or two conversations with
	23 correspondence that you delivered today I would be able	23	Mr. Owens. I asked you if they involved net metering.
	24 to tell who was on those calls?	24	You said no. What did they involve?
	25 A You will see who received the e-mail about the	25	A The wide ranging number of issues I said may

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03:05	1 have involved net metering. That was the discussion 2 that he gave with Mr. Cavanaugh at the University of 3 Idaho seminar, and Mr. Owens gave a presentation on 4 distributed energy resource planning, did not involve -- 5 involved a general topic of distributed energy 6 resources, including the integration of private solar 7 generation and battery storage into the grid and 8 planning for such integration into the grid. 9 Q He made a presentation, but you also spoke 10 directly with him? 11 A Not at that time. 12 Q Okay. 13 When did you speak directly with him? 14 A In Idaho. 15 Q When was that? 16 A That was in 2013 or '14 when I attended the -- 17 Actually it couldn't have been '13. It must have been 18 2012. 19 Q And subsequent to that time have you had 20 conversations with him? 21 A I had a phone conference with Mr. Owens in the 22 presentation he made, and I had a separate phone 23 conference with Mr. Owens in June or July of this year. 24 Q About? 25 A Distributed energy resource planning.	03:09	1 owned by a customer or located on the customer's side of 2 the meter from universal or public generation. 3 Q What is it about that specific generation that 4 makes it private to you, is it the ownership? 5 A It's just a clear means in my mind of 6 communicating and distinguishing between generation that 7 is located on the customer's side of the meter, private 8 to that customer generally, and public or universal 9 scale generation or central plant generation, which is 10 located on the utility's side of the meter. 11 Q So talk to me about a utility scale solar plant 12 like First Solar that is privately owned by a company 13 that is not the utility company. You would still refer 14 to that as public generation? 15 A I would refer to that and I refer to the First 16 Solar facility as universal scale or universal or public 17 generation or a central plant generation. 18 Q That is privately owned? 19 A As is NV Energy's generation is owned by a 20 company. 21 Q Is this your term, Mr. Elicegui, or is there a 22 genesis, where did it come from? 23 A EEI has a recommended lexicon for discussing a 24 number of topics, and one of EEI's recommended lexicon 25 terms is private generation.
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03:06	1 Q And did it pertain at all to the E3 study? 2 A No. 3 Q Did it pertain to the MIT study? 4 A No. 5 Q Was it specific to any study? 6 A It was specific to a general topic of a study. 7 One item that Mr. Owens indicated that he was 8 recommending to EEI CEOs is that utilities conduct 9 circuit by circuit analysis of distributed energy 10 resource penetration and power flow studies. It was not 11 a specific study like a topical study or a study 12 authored by an entity. He was explaining it was a 13 recommendation that he was going to make to EEI CEOs. 14 Q In your testimony, let's take a look at page 15 17, question and answer 23. You refer here in the 16 question to private generation, the private generation 17 order, which as I understand from your testimony is your 18 reference to the orders in Dockets Number 15-07041 and 19 42. Am I right about that? 20 Take a look at the bottom of page 14, question 21 19 top of page 15. 22 A Yes, I short form the modified final order as 23 the private generation order. 24 Q Why do you use the term private generation? 25 A To distinguish private generation, which is	03:11	1 Q What is a lexicon term? 2 A A lexicon is effectively a dictionary. So a 3 lexicon term is to me a word that EEI has identified in 4 this document to refer to a specific type of generation. 5 Q And so your adoption of that term is a result 6 of EEI using it? 7 A It's a result of a recommendation by EEI and 8 it's also my independent assessment that it clearly 9 connotes what I'm referring to. 10 Q Is EEI's reason for using it the same as your 11 reason for using it? 12 A I don't know. I don't know what EEI's reason 13 for using it is. 14 Q In the lexicon of terms how is it defined, if 15 you recall? 16 A As private generation or generation located on 17 the customer's side of the meter. 18 Q So that would be consistent with your 19 explanation of why you use the term? 20 A It's consistent with my use of the term. I 21 don't know EEI's reasoning behind using the term. 22 Q That term is not used in the Commission's 23 orders in any of the net metering dockets in Nevada, is 24 it? 25 A Not to my recollection.



NV Energy

Shawn Elicegui

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03:13	<p>1 Q It's not used in NV Energy's tariffs either, is it?</p> <p>2</p> <p>3 A Not to my recollection.</p> <p>4 Q If we could take a look at Q and A 7 of your testimony on page 3 which reads please summarize Sierra's request.</p> <p>5</p> <p>6</p> <p>7 A I'm sorry, could you repeat the question?</p> <p>8 Q Q and A 7, page 3. The question reads please summarize Sierra's request.</p> <p>9</p> <p>10 A Yes.</p> <p>11 Q You say at line 20 as one example, in this filing Sierra concludes that it should revise the single-family basic service charge to reflect approximately 25 percent of primary distribution facilities costs.</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16 Do you see that?</p> <p>17 A Yes.</p> <p>18 Q And then you have got -- you have got footnote 2 there that address the Commission's order in Docket Number 14-05004 and 14-05005. Do you see that?</p> <p>19</p> <p>20</p> <p>21 A Yes.</p> <p>22 Q How do you derive -- how did the utility company derive the approximate 25 percent of primary distribution facilities costs?</p> <p>23</p> <p>24</p> <p>25 A Ms. Walsh derives that recommendation and</p>	03:16	<p>1 of customers that would fall into that category?</p> <p>2 A A customer who has private generation or generation located on their side of the meter.</p> <p>3</p> <p>4 Q So that would not only be rooftop solar customers, but that might be customers with distributed generation that's gas fired?</p> <p>5</p> <p>6</p> <p>7 A It's any customer who purchases some, but not all of their energy requirements from the company.</p> <p>8</p> <p>9 Q When you say some or all, even if a customer purchases a very small amount -- excuse me, even if a customer generates a very small amount of energy on their side of the meter they would be a partial requirements customer, in other words as long as it's something less than their total requirement?</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15 A Any customer who purchases some, but not all of their energy I term a partial requirements customer.</p> <p>16</p> <p>17 Q And some doesn't have like a five percent threshold. Some is a kilowatt hour?</p> <p>18</p> <p>19 A Any amount of energy, some but not all of their energy needs. In other words, they don't have a full requirements contract with the utility.</p> <p>20</p> <p>21</p> <p>22 Q Can we go to page 6 of your testimony. You have Chart Elicegui Direct-1.</p> <p>23</p> <p>24 A I'm there.</p> <p>25 Q This is, as the heading reads, the average</p>
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03:15	<p>1 supports the recommendation.</p> <p>2 Q So in your testimony you're just referencing it?</p> <p>3</p> <p>4 A Yes.</p> <p>5 Q And you don't know how it was derived?</p> <p>6 A You asked me how the utility company derived it and I said Ms. Walsh derived it.</p> <p>7</p> <p>8 Q Are you familiar with Ms. Walsh's work on this?</p> <p>9 A No.</p> <p>10 Q And you cannot tell me how it was derived?</p> <p>11 A No.</p> <p>12 Q Let's go to page 5 of your testimony. Footnote 4 you talk about partial requirements customers here. Actually footnote 4 relates to a sentence that begins at the bottom of page 4, line 22. In light of this and other ratemaking mandates. Do you see that?</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17 A Yes.</p> <p>18 Q Go ahead and read the rest of the sentence to yourself.</p> <p>19</p> <p>20 You have got a reference there to partial requirements customers. Who is included in the partial requirements customer that you reference there?</p> <p>21</p> <p>22</p> <p>23 A Any customer who purchases some, but not all of their energy needs from the utility.</p> <p>24</p> <p>25 Q Specifically do you have any specific examples</p>	03:18	<p>1 monthly bill for Sierra Pacific Power Company electric customers Schedule Number D-1; correct?</p> <p>2</p> <p>3 A Yes.</p> <p>4 Q Okay.</p> <p>5 And this information was, as you pointed out, derived from which exhibit that we have introduced thus far into the deposition, is it Exhibit 6?</p> <p>6</p> <p>7</p> <p>8 A Yes, as modified as I indicated.</p> <p>9 Q Was weather considered an effect at all in preparing the information that appears in Chart Elicegui Direct-1?</p> <p>10</p> <p>11</p> <p>12 A The billing determinants are annualized and weather normalized taken from the relevant rate case, which is why items are indicated in pink because that is when a specific annualized and weather normalized billing determinant or average was set. So weather was taken into account in that it was normalized or -- yes, it was normalized.</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19 Q Do each of the pink entries, and there are four of them on Exhibit 6, represent the data that was used for purposes of weather normalization?</p> <p>20</p> <p>21</p> <p>22 A Three of the four do, because 2/15 was a change downward and there was no change in the weather annualization. The change on 2/15/14 did not affect the average annual consumption. It was just a reduction in</p>
03:16	<p>25</p>	03:20	<p>25</p>

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03 : 20	1 the basic service charge, which has a corresponding 2 adjustment in the base tariff generation rate or general 3 rate, which you will see in comparing the 1/1/2014 and 4 the 2/15/2014 basic service charges and BTGR rates. 5 Q You're speaking now to the \$17.50 for 1/1/14 6 versus the \$15.25 for 2/15/14? 7 A As well as the 5.295 cents per kilowatt hour in 8 the BTGR rate at 1/1/2014 and the 5.592 cents per 9 kilowatt hour BTGR rate on February 15, 2014.	03 : 24	1 Q Okay. 2 Who assisted you with the preparation of this 3 again and who might know that? 4 A People whom assisted with the preparation are 5 Mark Reyes, who created the chart based on the data that 6 I sent him, which is here. 7 Q Mark Reyes? 8 A Yes, that's the person who assisted me in the 9 preparation of the chart. I don't know the answer to 10 your second question. I don't understand the question.
03 : 21	10 Q Mr. Elicegui, these are the first two months 11 that directly follow the Commission's issuance of the 12 order in Sierra's last general rate case, Docket Number 13 13-06002; is that a correct statement? 14 A It's the rate of the first -- the 1/1/2014 is 15 the rate effective date from the 2013 general rate case.	03 : 24	10 Q My question was simply who assisted you in 11 preparing the chart and the second part of that question 12 was who might know the answer to the question that I 13 asked you? 14 A The question being the impact of energy 15 efficiency or distributed generation on this chart, I 16 don't know.
03 : 21	16 Q And am I looking at here the original order 17 reflected in the customer charge in BTGR versus the 18 order that was issued on reconsideration? 19 A Yes.	03 : 24	16 Q You also discussed in your testimony the 17 reduction in the cost of debt. That appears on page 13. 18 This is Q and A 16. You're discussing Mr. Cole's 19 testimony and at line 8 you talk about the initiative 20 that resulted in a significant projected reduction in 21 the electric division's cost of debt from 5.77 percent 22 in 2013 to a projected 4.12 percent. Do you see this, 23 this change alone will save customers an estimated 13.7
03 : 22	20 Q The order on reconsideration in 13-06002 21 reduced the customer charge, correct, to the \$15.25 from 22 the \$17.50? 23 A It reduced the customer charge, yes.	03 : 25	20 This is Q and A 16. You're discussing Mr. Cole's 21 testimony and at line 8 you talk about the initiative 22 that resulted in a significant projected reduction in 23 the electric division's cost of debt from 5.77 percent 24 in 2013 to a projected 4.12 percent. Do you see this, 25 this change alone will save customers an estimated 13.7
03 : 22	24 Q For what other reasons -- We've talked about 25 weather normalization. For what other reasons do the	03 : 25	25 this change alone will save customers an estimated 13.7
Page 66		Page 68	
03 : 22	1 four entries that appear in pink on Exhibit 6, why have 2 they been colored pink? 3 A Those are colored pink for me to note the rate 4 effective date from a general rate case. 5 Q So in other words, the first pink entry the 6 effective date is 7/1/08. That would have followed -- 7 is that the first month following the Commission's order 8 on a general rate case? 9 A Yes.	03 : 26	1 million. Do you see that? 2 A Yes. 3 Q When was the 4.12 percent rate effective? 4 A That's a projected rate so at the time of the 5 filing we had not -- We might have at the time of the 6 filing. April or May of 2016, which was immediately 7 before the close of the certification period. 8 Q So the 5.77 percent has been in effect since 9 2013; is that correct, or it was in effect since 2013?
03 : 22	10 Q Okay. 11 A It's the rate effective date. 12 Q And the same would be true about 1/1/2011, the 13 rate effective date for the general rate case in 2010? 14 A Yes, so it signifies a change in the base 15 general rates.	03 : 26	10 A The 5.77 percent is the cost of debt that was 11 used to establish the ROR in 2013. I am here 12 referencing a refinancing of a certain amount of debt 13 that occurred in 2016. 14 Q And when you say it's projected at 4.12 15 percent, you filed this application on June 6th, 2016. 16 When is the 4.2 percent projected to take effect?
03 : 23	16 Q Regarding the chart that is Chart Elicegui 17 Direct-1 again on page 6 of your testimony, how much of 18 the effect on the chart is due to the reduction in usage 19 from energy efficiency or the use of distributed 20 generation? 21 A Can you repeat the question? 22 Q How much of the effect that we see on the chart 23 is due to, if at all, the reduction in usage from energy 24 efficiency or the use of distributed generation? 25 A I don't know.	03 : 27	15 percent, you filed this application on June 6th, 2016. 16 When is the 4.2 percent projected to take effect? 17 A So when we filed we had completed the 18 refinancing, but the preparation of Statement F, which 19 is the weighted average cost of capital, predated the 20 filing by several months. So in order to prepare the 21 filing we had to project what the results of the 22 refinancing are. Refinancings occur and pricing 23 changes. 24 The refinancing occurred in either April or May 25 of 2016. That's when the debt issued by the company
03 : 23	25 A I don't know.	03 : 27	25 of 2016. That's when the debt issued by the company

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03 : 28	<p>1 produced a lower average weighted cost of capital.</p> <p>2 Q And what is the electric division's current</p> <p>3 cost of debt?</p> <p>4 A The current cost of debt is the lower</p> <p>5 refinanced cost of debt. It's the actual cost of debt.</p> <p>6 Q Which is?</p> <p>7 A I don't know what it is, because I don't have</p> <p>8 the certification cost capital filing with me.</p> <p>9 Q Okay.</p> <p>10 At page 14, line 5 of your testimony you talk</p> <p>11 about the MyAccount portal on line 5. What percentage</p> <p>12 of the utility company's customers, Sierra Pacific Power</p> <p>13 Company's customers use that service?</p> <p>14 A I don't know.</p> <p>15 Q If you don't know how many use it you obviously</p> <p>16 don't know how often they would use it then?</p> <p>17 A That's correct.</p> <p>18 Q Okay.</p> <p>19 And you also reference the mobile app in case</p> <p>20 customers choose to do business on their mobile devices.</p> <p>21 Any idea how many mobile app downloads there have been?</p> <p>22 A No.</p> <p>23 MS. DRAKULICH: I would like to take a few</p> <p>24 minute break right now, if you don't mind, Mr. Elicegui,</p> <p>25 can we take a few minutes?</p>	03 : 46	<p>1 proposal to the Commission?</p> <p>2 A Sierra's integrated resource plan, Docket</p> <p>3 16-07001 --</p> <p>4 MS. ELLIOT: Yes.</p> <p>5 BY MS. DRAKULICH:</p> <p>6 Q Yes.</p> <p>7 A -- contains a new long-term avoided cost</p> <p>8 calculation.</p> <p>9 Q And what is the proposal with regard to the</p> <p>10 avoided cost calculation set forth in 16-07001 relative</p> <p>11 to net metering?</p> <p>12 A There is no proposal in that document relative</p> <p>13 to the excess generation credit.</p> <p>14 Q If the Commission approves a different</p> <p>15 long-term avoided cost in Docket 16-07001 will this at</p> <p>16 all modify the utility company's testimony or proposals</p> <p>17 in Docket 16-06006?</p> <p>18 A It could.</p> <p>19 Q How could it?</p> <p>20 A It would have a different long-term avoided</p> <p>21 cost and the long-term avoided cost is the foundation of</p> <p>22 the company's proposal in 16-06006. So the company</p> <p>23 could or another party could select that long-term</p> <p>24 avoided cost as the appropriate foundation for the</p> <p>25 excess credit calculation.</p>
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03 : 44	<p>1 THE WITNESS: That's fine.</p> <p>2 MS. DRAKULICH: Off the record.</p> <p>3 (A recess was taken.)</p> <p>4 BY MS. DRAKULICH:</p> <p>5 Q Mr. Elicegui, I want you to turn to Q and A 27</p> <p>6 of your testimony, please. This goes back -- this Q and</p> <p>7 A 27 on page 18 of your testimony says is the</p> <p>8 methodology that Sierra used to calculate the excess</p> <p>9 energy credit rate consistent with the private</p> <p>10 generations order.</p> <p>11 Do you see that?</p> <p>12 A Yes.</p> <p>13 Q On line 4, 3 and 4 you say Sierra had not made,</p> <p>14 and the Commission has not approved, an alternative</p> <p>15 long-term avoided cost, and then you go on to talk about</p> <p>16 the fact that Sierra used the last approved long-term</p> <p>17 avoided cost as a foundation for its proposal; correct?</p> <p>18 A On line 3 I state as of the date of this filing</p> <p>19 Sierra has not made, and the Commission has not</p> <p>20 approved, an alternative long-term avoided cost.</p> <p>21 Q What is the importance of as of the date of</p> <p>22 this filing?</p> <p>23 A It's the date that the company made the filing.</p> <p>24 Q Since the date of the filing has the utility</p> <p>25 company made an alternative long-term avoided cost</p>	03 : 47	<p>1 Q Do you expect that NV Energy will do that?</p> <p>2 A I don't have an expectation as I sit here.</p> <p>3 Q You don't have an expectation that the utility</p> <p>4 company will recommend a modification to the proposal in</p> <p>5 16-06006?</p> <p>6 A I don't have an expectation as I sit here</p> <p>7 today.</p> <p>8 Q As to what?</p> <p>9 A As to whether the company will propose to</p> <p>10 modify the excess energy credit based on an order</p> <p>11 approving the long-term avoided cost calculation in</p> <p>12 16-07001.</p> <p>13 Q And what would making a recommendation to do</p> <p>14 so, if the utility company were to do it, be based on?</p> <p>15 A A number of factors.</p> <p>16 Q What are those factors?</p> <p>17 A Timing of the issuance of an order, the impact</p> <p>18 of the order on the excess credit rate.</p> <p>19 Q Timing of an issuance of an order in Docket</p> <p>20 16-07001?</p> <p>21 A That's correct. The impact on the excess</p> <p>22 energy credit rate, timing of this proceeding, other</p> <p>23 factors that the senior management team may consider.</p> <p>24 Q What are those other factors?</p> <p>25 A I don't know, questions.</p>
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03:49	<p>1 Q With regard to timing, what is the issue with</p> <p>2 regard to timing? When would an order in 16-07001 have</p> <p>3 to be issued for the utility company to consider that</p> <p>4 result in terms of calculation of the excess energy rate</p> <p>5 that is proposed in the general rate case?</p> <p>6 A Prior to the close of record in this docket.</p> <p>7 Q In this docket you mean 16-06006?</p> <p>8 A That's correct.</p> <p>9 Q And what is prior to the close of record in</p> <p>10 this docket?</p> <p>11 A I don't know when the record will be completed</p> <p>12 and finished in this docket.</p> <p>13 Q When you say record completed and finished do</p> <p>14 you mean when the Commission issues its final order or</p> <p>15 when the Commission formally closes the docket online?</p> <p>16 A I mean when the Commission closes the</p> <p>17 evidentiary record, which is typically at the conclusion</p> <p>18 of a hearing.</p> <p>19 Q And would it be the conclusion of the rate</p> <p>20 design portion of the hearing?</p> <p>21 A When the Commission closes the evidentiary</p> <p>22 record in the docket, which I assume will occur at the</p> <p>23 conclusion of the rate design portion of the hearing.</p> <p>24 Q What does the order in Docket 16-07001 need to</p> <p>25 say about the long-term avoided cost for the utility</p>	03:52	<p>1 energy rate?</p> <p>2 A I would have to think through the mathematics</p> <p>3 of the calculation.</p> <p>4 Q Take your time.</p> <p>5 A It would most likely lower the long-term</p> <p>6 avoided cost, which would lower the target, but the</p> <p>7 excess energy credit is based on the difference between</p> <p>8 the current rate and the target.</p> <p>9 Q What is the target?</p> <p>10 A The target is the end of the 12-year ladder</p> <p>11 strategy.</p> <p>12 Q The target is the total implementation of the</p> <p>13 Commission's orders in Dockets 15-07041 and 42?</p> <p>14 A The target is a competitive rate that would</p> <p>15 result at the end of the 12-year ladder</p> <p>16 strategy.</p> <p>17 Q It's the full implementation of the</p> <p>18 Commission's order in the NEM documents?</p> <p>19 A Yes, I view that as a competitive rate that</p> <p>20 would result at the end of the 12-year ladder</p> <p>21 strategy where the Commission appears to be headed based</p> <p>22 on the private generation order.</p> <p>23 So the current excess energy rate is a</p> <p>24 calculation that depends on the difference between the</p> <p>25 target and the current excess energy rate. The</p>
03:50	<p>1 company to consider it in making a proposal to the</p> <p>2 Commission before the close of the evidentiary record?</p> <p>3 A I don't know what it needs to say, but if the</p> <p>4 order directed the company to change its proposal in</p> <p>5 this docket or to make its proposal in this docket based</p> <p>6 off of a long-term avoided cost approved in that case</p> <p>7 then the utility company would comply with the order.</p> <p>8 Q Is that something the utility company might</p> <p>9 request of the Commission?</p> <p>10 A NV Energy has not requested that of the</p> <p>11 Commission in 16-07001.</p> <p>12 Q I'm speaking now of 16-06006. Is that</p> <p>13 something in other words that -- Has the utility company</p> <p>14 in Docket 16-06006 addressed a revised excess energy</p> <p>15 rate based on the long-term avoided cost in docket --</p> <p>16 that may be approved in Docket 16-07001?</p> <p>17 A Not yet.</p> <p>18 Q Do you expect to make that request in Docket</p> <p>19 16-06006?</p> <p>20 A I don't have an expectation about that today.</p> <p>21 Q Based on what you know about the long-term</p> <p>22 avoided cost set forth in the utility company's proposal</p> <p>23 in Docket 16-07001, if that was approved by the</p> <p>24 Commission and incorporated into the calculation of the</p> <p>25 excess energy rate would it raise or lower the excess</p>	03:53	<p>1 long-term avoided cost in 16-07001 is most likely lower</p>
03:50	<p>1 than the long-term avoided cost for 2017 in 15-08001.</p> <p>2 Q So it would result --</p> <p>3 A So it would most likely reduce the excess</p> <p>4 energy credit rate, but I have to think through the</p> <p>5 calculation because the excess energy credit rate is</p> <p>6 based off the difference between the current rate and</p> <p>7 the target.</p> <p>8 So the target would go lower, which should -- I</p> <p>9 didn't do the calculation, but it should produce a</p> <p>10 slightly lower excess energy credit rate for the first</p> <p>11 -- for the step that we're currently in.</p> <p>12 Q And the step that we're currently in ends</p> <p>13 January 1 of 2019?</p> <p>14 A That is correct.</p> <p>15 Q And when you say it will reduce the excess</p> <p>16 energy credit rate what you mean is that on a per</p> <p>17 kilowatt hour basis the energy that the net metering</p> <p>18 customer delivers to the utility company will be</p> <p>19 compensated at a rate that is lower than what is</p> <p>20 currently in place?</p> <p>21 A If the result of the calculation is a lower</p> <p>22 excess energy credit rate. Excess energy credit is the</p> <p>23 credit that the -- that NV Energy places on the</p> <p>24 company -- on a customer's bill for energy delivered to</p> <p>25 the company.</p>	03:54	<p>1 than the long-term avoided cost for 2017 in 15-08001.</p> <p>2 Q So it would result --</p> <p>3 A So it would most likely reduce the excess</p> <p>4 energy credit rate, but I have to think through the</p> <p>5 calculation because the excess energy credit rate is</p> <p>6 based off the difference between the current rate and</p> <p>7 the target.</p> <p>8 So the target would go lower, which should -- I</p> <p>9 didn't do the calculation, but it should produce a</p> <p>10 slightly lower excess energy credit rate for the first</p> <p>11 -- for the step that we're currently in.</p> <p>12 Q And the step that we're currently in ends</p> <p>13 January 1 of 2019?</p> <p>14 A That is correct.</p> <p>15 Q And when you say it will reduce the excess</p> <p>16 energy credit rate what you mean is that on a per</p> <p>17 kilowatt hour basis the energy that the net metering</p> <p>18 customer delivers to the utility company will be</p> <p>19 compensated at a rate that is lower than what is</p> <p>20 currently in place?</p> <p>21 A If the result of the calculation is a lower</p> <p>22 excess energy credit rate. Excess energy credit is the</p> <p>23 credit that the -- that NV Energy places on the</p> <p>24 company -- on a customer's bill for energy delivered to</p> <p>25 the company.</p>

NV Energy

Shawn EliceGUI

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03:55	<p>1 Q Again if the long-term avoided cost in 16-07001</p> <p>2 is lower and it results in a lower -- inputting that</p> <p>3 into the excess energy calculation would result in a</p> <p>4 lower -- or in other words it would result in a lower</p> <p>5 excess energy credit rate to customers who deliver</p> <p>6 energy from their net metering systems to the utility?</p> <p>7 A It should, yes.</p> <p>8 Q And is the utility company's asking regarding</p> <p>9 incorporation of the long-term avoided cost rate in</p> <p>10 16-07001 dependent on when the Commission issues the</p> <p>11 order in that case?</p> <p>12 A Could you repeat the question?</p> <p>13 Q Is the utility company's -- I can't repeat it</p> <p>14 exactly, so I will repeat it the best I remember it.</p> <p>15 Is the utility company's decision in Docket</p> <p>16 16-06006 to ask for the implementation of the long-term</p> <p>17 avoided cost rate that might be approved in 16-07001</p> <p>18 dependent on the Commission issuing an order in 16-07001</p> <p>19 before the end of the evidentiary proceeding in</p> <p>20 16-06006?</p> <p>21 A Yes, at least in part.</p> <p>22 Q What is the other part?</p> <p>23 A The other factors that the management team will</p> <p>24 consider in formulating a recommendation in this case.</p> <p>25 Q And what are those factors?</p>	03:58	<p>1 the Commission that they input that long-term avoided</p> <p>2 cost and you said we might. My question for you is why</p> <p>3 we might, why wouldn't you do that?</p> <p>4 A I don't have an expectation as to whether we</p> <p>5 will make a -- we will propose a change based on an</p> <p>6 order in another docket. So it's the same hesitation I</p> <p>7 would have given if you had asked would a reduction in</p> <p>8 the excess energy credit rate result in a proposal.</p> <p>9 It's the hesitation that I am speculating about a future</p> <p>10 event.</p> <p>11 Q Is it at all tied to the fact that it would</p> <p>12 cause the excess energy rate to go up?</p> <p>13 A No. It's tied to me speculating about a future</p> <p>14 event.</p> <p>15 Q Yet you seem certain that if it would cause the</p> <p>16 excess energy rate to go down you would make that</p> <p>17 request to the Commission?</p> <p>18 A No, I don't. I just stated that I would have</p> <p>19 the exact same hesitation if you were to ask what would</p> <p>20 your proposal be if it would drive the excess energy</p> <p>21 credit rate down and that is because I'm speculating</p> <p>22 about a future event.</p> <p>23 I need to understand the impact on the filing,</p> <p>24 the impact on the case, the impact on billing, how long</p> <p>25 it will take us, if at all, to implement a change, the</p>
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03:57	<p>1 A I identified one, which is the impact on the</p> <p>2 excess energy credit rate, and other factors that the</p> <p>3 senior management team may ask me questions that they</p> <p>4 may ask me if we choose to make a recommendation to</p> <p>5 change -- to use the more recent long-term avoided cost.</p> <p>6 Q What do you anticipate those factors to be?</p> <p>7 A None other than the two that I have mentioned</p> <p>8 today, which are the timing and the impact on the excess</p> <p>9 energy credit.</p> <p>10 Q What do you mean by the impact on the excess</p> <p>11 energy credit?</p> <p>12 A Whether it will change the rate, whether the</p> <p>13 rate will go up or down.</p> <p>14 Q If the rate goes up as a result of the</p> <p>15 long-term avoided cost -- if the rate could go up as a</p> <p>16 result of the long-term avoided cost that is approved in</p> <p>17 16-07001 do you expect the utility company to make a</p> <p>18 recommendation to implement it?</p> <p>19 A We might.</p> <p>20 Q Why the hesitation, Mr. EliceGUI? Why is it</p> <p>21 questionable?</p> <p>22 A If the rate were to go up or -- I'm sorry.</p> <p>23 Q Why is it questionable -- I said if the</p> <p>24 long-term avoided cost rate would cause the excess</p> <p>25 energy rate to go up would you make a recommendation to</p>	04:00	<p>1 amount of hours that individuals might have to work to</p> <p>2 program a change, where that change sits relative to a</p> <p>3 quarterly rate change.</p> <p>4 Q If the order in 16-07001 is outside a time</p> <p>5 frame that would allow it to be included in the case,</p> <p>6 in 16-06006, when do you anticipate the utility company</p> <p>7 would make a request of the Commission that reflects the</p> <p>8 new long-term avoided cost?</p> <p>9 A The company would be required to make a request</p> <p>10 when it files its next general rate case. Under the</p> <p>11 current statutory scheme Sierra Pacific is required to</p> <p>12 make a general rate case filing on the first Monday of</p> <p>13 June of 2019.</p> <p>14 Because the excess energy credit flows through</p> <p>15 deferred energy, the company could make a proposed</p> <p>16 change -- I believe I may have the flexibility to</p> <p>17 propose a change outside of the general rate case cycle.</p> <p>18 So I don't have an expectation as to when we will make</p> <p>19 the next proposed change. I know that under the current</p> <p>20 regime we would have to make a proposed change in the</p> <p>21 next general revenue rate case and I believe we could</p> <p>22 have the flexibility to make a proposal outside of the</p> <p>23 general rate case.</p> <p>24 I haven't asked the legal team to research that</p> <p>25 so I don't know if the legal team believes that we have</p>

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04 : 01	<p>1 the statutory ability or the ability under the statutes</p> <p>2 to change the excess credit rate outside of a general</p> <p>3 rate case.</p> <p>4 Q What is it about the excess energy credit rate</p> <p>5 that as you sit here today makes you think you could</p> <p>6 change it outside the context of a general rate case?</p> <p>7 A The excess credit is a fuel and purchased power</p> <p>8 cost so it would be an amount in total of all excess</p> <p>9 energy credits that are provided to customers on their</p> <p>10 bill is a cost that rolls into the deferred accounting</p> <p>11 fuel and purchased power accounting adjustment such</p> <p>12 that -- and that rate changes on a quarterly basis, that</p> <p>13 rate being the overall deferred energy accounting</p> <p>14 adjustment as well as the base tariff energy rate.</p> <p>15 Because that is a cost of fuel and purchased</p> <p>16 power I personally believe one could ask for a change in</p> <p>17 that rate outside of a general rate case.</p> <p>18 Q What are the factors that would cause the</p> <p>19 utility company to make that request outside the context</p> <p>20 of a general rate case?</p> <p>21 A The factors that I described a few moments ago</p> <p>22 about whether the company would make that proposal in</p> <p>23 this case.</p> <p>24 Q Which are, refresh my recollection on those</p> <p>25 factors?</p>	04 : 05	<p>1 different than a current and appropriate rate based on</p> <p>2 the long-term avoided cost I would recommend a change.</p> <p>3 Q Give me an example of something that would make</p> <p>4 it materially change outside the context of a general</p> <p>5 rate case?</p> <p>6 A Reduction in fuel and purchased power prices</p> <p>7 and a reduction in the fuel and purchased power forecast</p> <p>8 has an impact on the long-term avoided cost rate.</p> <p>9 Q What about an increase in fuel and purchased</p> <p>10 power prices?</p> <p>11 A That would have -- any change in fuel and</p> <p>12 purchased power price increase can have an effect on the</p> <p>13 long-term avoided cost.</p> <p>14 Q I want to direct you to question and answer 32</p> <p>15 of your testimony. This question asks whether since the</p> <p>16 issuance of the Commission's order in Dockets 15-07041</p> <p>17 and 42 if Sierra has quantified additional costs and</p> <p>18 benefits associated with the integration of private</p> <p>19 solar and other distributed energy resources.</p> <p>20 Do you see that?</p> <p>21 A Yes.</p> <p>22 Q The first part of your answer is no, not yet,</p> <p>23 and then you go on to talk about the incremental costs</p> <p>24 of integrating private solar generation into the power</p> <p>25 grid and administering private solar generation in a</p>
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04 : 03	<p>1 A Timing, impact on billing, impact on customers,</p> <p>2 impact on employees, for example if it required a</p> <p>3 significant amount of overtime, a significant amount of</p> <p>4 programming, significant amount of coding to the system,</p> <p>5 significant amount of notice to customers.</p> <p>6 Q Aside from the issues you just mentioned and</p> <p>7 focusing now on the rate itself and the components of</p> <p>8 the excess energy rate, what impacts to those components</p> <p>9 as you sit here today do you think would cause the</p> <p>10 utility company to come in outside the context of a</p> <p>11 general rate case and request a change in the excess</p> <p>12 energy rate?</p> <p>13 A First I would have to ask the legal department</p> <p>14 to assess whether that is permissible, so the ability to</p> <p>15 do so. As I said it's my personal belief. I haven't</p> <p>16 researched the issue that it could be done.</p> <p>17 I think the primary issue, at least it would</p> <p>18 personally be one that I would consider. I can't tell</p> <p>19 you what my supervisor would consider or the other</p> <p>20 members of the senior management team, but I would</p> <p>21 consider the difference in the rates, the overall gap,</p> <p>22 is it a material change, and if the change was material,</p> <p>23 either upwards or downwards, I would personally</p> <p>24 recommend a change because the credit is a reflection of</p> <p>25 a cost or a competitive rate. So if it is materially</p>	04 : 07	<p>1 fashion that allows for the safe and reliable operation</p> <p>2 of the power grid are real.</p> <p>3 Do you see that?</p> <p>4 A Yes.</p> <p>5 Q Now, you say in the question, you ask yourself</p> <p>6 in the question whether you have quantified it. You</p> <p>7 answer no and then you say but the costs are real, even</p> <p>8 though you haven't quantified them. Is that a correct</p> <p>9 representation of what is happening in that Q and A?</p> <p>10 A My testimony says the potential incremental</p> <p>11 costs of integrating private solar generation into the</p> <p>12 power grid and administering private solar generation in</p> <p>13 a fashion that allows for the safe and reliable</p> <p>14 operation of the power grid are real.</p> <p>15 Q But you have not quantified them?</p> <p>16 A In response to the question have you quantified</p> <p>17 -- has Sierra quantified additional costs and benefits</p> <p>18 associated with the integration of private solar and</p> <p>19 other distributed energy resources, additional is the</p> <p>20 key word there because I am referring to in addition to</p> <p>21 any evidence produced in the record in 15-07041,</p> <p>22 15-07042, no, the company has not yet quantified any</p> <p>23 additional costs or benefits.</p> <p>24 Q The statement that follows, the potential</p> <p>25 incremental costs, does that refer to the costs that</p>

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04:08	1 were identified in the net metering dockets or does that	1	proposition that integrating private solar generation
	2 refer to the additional costs and benefits that you	2	into the power grid can have costs and the very specific
	3 reference in the question?	3	statement, however when distributed PV grows to account
	4 A Both.	4	for a significant share of overall generation its net
04:09	5 Q You say that the costs are real and then you	04:12	5 effect is to increase distribution costs and thus local
	6 have this quotation that cites to what has been marked	6	rates. This is because new investments are required to
	7 in this deposition as Exhibit 10, and for purposes of	7	maintain power quality when power also flows from
	8 this, Mr. Elicegui, I would just like to refer to it as	8	customers back to the network, which current networks
04:09	9 the MIT study.	9	were not designed to handle.
	10 A Okay.	04:12	10 Q What does significant share mean in that
	11 Q And that is the study that you cite to in	11	quotation, do you know?
	12 footnote 21 of your testimony on page 22; correct?	12	A I don't know.
04:09	13 A Yes.	13	Q You don't know, okay.
	14 Q And that's the source of the quote that appears	14	I want to go back to some questions I asked you
	15 at lines 12 through 16, yes?	04:13	15 about studies you may have reviewed and you made a
	16 A Yes.	16	reference to the SolarCity/NRDC study. Do you recall
04:09	17 Q Okay.	17	that?
	18 Can you take me in the MIT study to where that	18	A Yes.
	19 quote appears?	19	Q Now, that is a study that was put out in May of
	20 A Roman numeral page xviii or 18, I believe.	04:13	20 this year by SolarCity and NRDC regarding net energy
04:10	21 Q Under the heading distributed solar?	21	resources; correct?
	22 A Under the major heading integrating into	22	A I don't have the title in front of me, but it's
	23 existing electric systems, subheading distributed solar.	23	a study about, as I understand it, the impact of private
	24 Q And it's that paragraph that begins introducing	24	generation using the E3 public model from 2014.
04:10	25 distributed PV?	04:13	25 Q Okay.
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04:10	1 A That is correct.	1	I had asked you what you reviewed and when I
	2 Q Mr. Elicegui, have you read -- and this is	2	went back and took a look at my notes you said I
	3 informational only. It's not meant to insult. Have you	3	reviewed a draft response to the study. What is the
	4 read the whole MIT study?	4	draft response?
04:11	5 A Lord, no.	04:14	5 A It is a response currently in draft form being
	6 Q Sorry?	6	completed by NV Energy.
	7 A No.	7	Q Okay.
	8 Q What portions of it have you read?	8	And is the draft response being prepared for
04:11	9 A I read portions. I cannot recall precisely	9	use in Docket 16-06006?
	10 which portions in connection with 15-07041 and 15-07042,	04:14	10 MS. ELLIOT: I'm going to object to the
	11 which was quite a while ago.	11	question on the grounds of privilege.
	12 In connection with preparation of this	12	MS. DRAKULICH: On the grounds of --
04:11	13 testimony I went back solely to the executive summary.	13	MS. ELLIOT: Privilege.
	14 Q And you used the study in your testimony as	14	BY MS. DRAKULICH:
	15 support for the utility company's position about the	04:14	15 Q Okay.
	16 fact that these incremental costs of integrating private	16	Mr. Elicegui, who is preparing the draft
04:11	17 solar generation into the power grid and administering	17	response in-house at NV Energy?
	18 private solar generation are real, you use the MIT study	18	MS. ELLIOT: Object to the question on the
	19 to support that statement?	19	grounds of privilege.
	20 A I make that statement and then I follow that	04:14	20 BY MS. DRAKULICH:
04:12	21 statement with a quote from the MIT study.	21	Q I want to go back to a couple of questions that
	22 Q And the MIT study is designed, as I read your	22	I asked you about the use of the term private solar. Do
	23 testimony, to support the utility company's position	23	you remember we had that discussion this afternoon,
	24 regarding the costs of net metering?	24	Mr. Elicegui?
04:12	25 A I cite the study for the purpose of the	04:15	25 A I used the term private generation.

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04:15	<p>1 Q Private generation, thank you. It is private</p> <p>2 generation. I stand corrected.</p> <p>3 You said that you use the term private</p> <p>4 generation and that the derivation of the term, I</p> <p>5 believe, was EEI?</p> <p>6 A There is an EEI document, yes, that has a</p> <p>7 number of terms for discussing the power grid and energy</p> <p>8 issues with customers and one of those sections deals</p> <p>9 was private generation.</p>	04:18	<p>1 Q And how did you know that the document existed</p> <p>2 when you asked her for a copy?</p> <p>3 A She and I had discussed the document so I asked</p> <p>4 for a copy.</p> <p>5 Q When did you discuss the document with her?</p> <p>6 A To the best of my recollection early first</p> <p>7 quarter of 2016.</p> <p>8 Q So this year 2016. Was the document newly</p> <p>9 released when you were provided it by her?</p>
04:16	<p>10 Q And what is that EEI document?</p> <p>11 A I don't know the name of the document. It's a</p> <p>12 document that I have reviewed.</p> <p>13 Q So you relied on it or used your review of it</p> <p>14 for purposes of preparation of your testimony?</p>	04:18	<p>10 A Can you define newly released?</p> <p>11 Q Okay, let me ask you another question.</p> <p>12 How did you hear about it?</p> <p>13 A Andrea and I had a discussion about it.</p> <p>14 Q In that discussion who brought it up?</p>
04:16	<p>15 A I reviewed it and I have selected the term</p> <p>16 private generation for use in my testimony.</p> <p>17 Q And my recollection of your testimony here</p> <p>18 today is because it coincides with -- your use of the</p> <p>19 term private generation coincides with EEI's use of the</p>	04:18	<p>15 A I don't recall. I believe she did.</p> <p>16 Q What did she tell you?</p> <p>17 A She indicated that she had reviewed an EEI</p> <p>18 document that had a number of terms, for example</p> <p>19 building a smarter energy infrastructure as opposed to</p>
04:16	<p>20 term, namely it's generation behind the meter that is</p> <p>21 privately owned by the customer?</p> <p>22 A My selection of the term is because it</p> <p>23 accurately describes the issue that I'm trying to</p> <p>24 communicate to the reader, which is that there is</p>	04:19	<p>20 evolving the grid, that she felt was friendly for</p> <p>21 communication of topics with customers. So I asked her</p> <p>22 for a copy of the document.</p> <p>23 Q And did she indicate to you how recently the</p> <p>24 document had been prepared?</p>
04:17	<p>25 private generation or generation located on the</p>	04:19	<p>25 A No.</p>
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04:17	<p>1 customer's side of the meter.</p> <p>2 Q I want to go back to the EEI document. When</p> <p>3 did you review it?</p> <p>4 A I don't recall.</p> <p>5 Q And is it a document that is publicly</p> <p>6 available?</p> <p>7 A I don't know.</p> <p>8 Q And what is the date on the document?</p> <p>9 A I don't recall.</p>	04:19	<p>1 Q So having received it in early 2016 I'm</p> <p>2 assuming you still have a copy of it?</p> <p>3 A I have an electronic copy, yes.</p> <p>4 Q And is that electronic copy -- when you say you</p> <p>5 have an electronic copy, I'm assuming it's in your</p> <p>6 e-mail because she provided it to you by e-mail?</p> <p>7 A Yeah, I tend to lose things so she provided it</p> <p>8 more than once.</p> <p>9 Q What is the name of the document?</p>
04:17	<p>10 Q The year?</p> <p>11 A I don't know.</p> <p>12 Q Where did you obtain it?</p> <p>13 A Andrea Smith.</p> <p>14 Q Who is Andrea Smith?</p>	04:20	<p>10 A I don't know.</p> <p>11 Q I know you touched on one or two things about</p> <p>12 what is in it regarding private generation, but tell me</p> <p>13 again what else is in the document in addition to the</p> <p>14 use of the term private generation and a description of</p>
04:17	<p>15 A An employee of NV Energy.</p> <p>16 Q And what is her title and in what department</p> <p>17 does she work?</p> <p>18 A She works in the corporate communication</p> <p>19 department.</p>	04:20	<p>15 private generation?</p> <p>16 A There is a number of terms that are designed to</p> <p>17 communicate more clearly with customers. So for example</p> <p>18 a term that you frequently use, the utility company, EEI</p> <p>19 suggests that we talk about energy companies because</p>
04:17	<p>20 Q What does she do for corporate communications?</p> <p>21 A She is a director in the department. I don't</p> <p>22 know her specific title.</p> <p>23 Q And did you ask her for the document or did she</p> <p>24 provide it to you unsolicited?</p>	04:20	<p>20 it's more understandable for the common person or the</p> <p>21 customer.</p> <p>22 So it's a wide ranging document that covers</p> <p>23 items such as, as I mentioned, building a smarter energy</p> <p>24 infrastructure, which we would have said investing in</p>
04:18	<p>25 A I asked her for a copy.</p>	04:21	<p>25 advanced service delivery products a few years ago or</p>



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04 : 21	1 two years ago and very few people understand what 2 advanced service delivery products are, but people tend 3 to understand what a smarter energy infrastructure is. 4 Q If I gave you a minute could you research on 5 your electric device or handheld device your e-mail and 6 get me the name of the document? 7 A No. 8 Q No, you can't, you don't have your phone with 9 you or no, you won't? 04 : 21 10 A No, I have my phone with me. I don't believe I 11 can find it. I can look for it, if you would like. 12 Q I would like that. I would like to ask you to 13 provide it to us as a follow-up to this deposition. 14 A Would you like me to look right now? 04 : 21 15 Q Why don't we wait to the end when we have a few 16 minutes, but yes, if you have it I would like you to 17 provide it to us, please. 18 A And you could send a discovery request if you 19 would like us to -- if you would like me to look right 04 : 22 20 now I will take the time on my phone to look right now. 21 Q It occurs to me, Mr. Elicegui, based on the 22 conversation that you and I have had about this document 23 that it did play into the preparation of your testimony 24 and we should have been entitled to it anyway, but -- 04 : 22 25 A I didn't rely on the document in preparation of	04 : 23	1 is, but there were 50 or 60 class members, maybe more in 2 the event, but less than 200. 3 Q And did you speak to him personally or was it a 4 group discussion? 5 A It was a group discussion and I spoke with him 6 briefly after the event. 7 Q After the event when you spoke with him briefly 8 is this where he suggested to you that EEI was putting 9 something together regarding, I think it was the circuit 10 -- a recommendation to the utility companies regarding a 11 circuit by circuit analysis associated with distributed 12 generation? 13 A No. 14 Q When did that occur? 04 : 24 15 A As I indicated I believe that occurred in June 16 or July of this year. 17 Q When did the meeting in Idaho occur again? 18 A Several years ago. It couldn't have been -- 19 Q I think you said 2012? 04 : 24 20 A Yeah, so I'm searching my memory. It occurred 21 pre-transaction. It occurred when I was in the legal 22 department. So it was any point after 2009 prior to 23 2013. My best guess is 2012. 24 Q And the follow-up call that you had with him 04 : 24 25 was this year?
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04 : 22	1 my testimony. 2 I reviewed the document and I had a discussion 3 with Ms. Smith, as I said, in the first quarter of 2016 4 and it has shaped the way I think and speak and discuss 5 energy infrastructure and energy issues with customers. 6 MS. ELLIOT: If I could make a suggestion, if 7 you would like a copy of the document why don't you ask 8 a data request and I need to find out if we are able to 9 distribute it. I don't know if it's covered by 04 : 22 10 confidentiality from EEI or what, but that will get the 11 ball rolling and get the discussion initiated. 12 BY MS. DRAKULICH: 13 Q I want to go back to some of the questions I 14 asked you about David Owens. I was a little unclear, 04 : 23 15 Mr. Elicegui. 16 You talked about two conversations with him. 17 One was at an event that occurred, was it in Idaho? 18 A Yes. 19 Q And Mr. Cavanaugh was also there? 04 : 23 20 A Ralph Cavanaugh of the NRDC and Mr. Owens spoke 21 at an event in Idaho. 22 Q And was it like a CLE event where there were a 23 lot of people there or was it an executive event where 24 it was much more intimate? 04 : 23 25 A There were probably -- I don't know what a lot	04 : 25	1 A Yes. 2 Q When was it this year? 3 A June. 4 Q Did you reach out to him? 5 A I had heard Mr. Owens speak, as I mentioned, on 6 a conference call discussing distributed energy 7 resources. So I reached out to him to ask questions 8 about a recommendation he made in that conference call. 9 Q So subsequent to the 2012 conference there was 04 : 25 10 a conference call? 11 A Yes. 12 Q Was it a webinar, was it a -- 13 A It was an EEI webinar. 14 Q What was the subject of the webinar? 04 : 25 15 A Distributed energy resource planning. 16 Q And he made a comment on that call that caused 17 you to reach out to him? 18 A Yes. 19 Q What was the topic of the discussion and what 04 : 25 20 comment did he make? 21 A He made a comment, a recommendation, he was 22 explaining a recommendation he was going to make to EEI 23 CEOs that utilities engage in a distributed energy 24 resource planning and that they complete certain studies 04 : 26 25 in order to do that.

NV Energy

Shawn Elicegui

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1	Q That was the comment made on the webinar in	1	going to make to EEI CEOs is that because the members of
2	June of this year?	2	EEI are predominantly electric utilities?
3	A I believe it was June of this year, yes.	3	A I don't know. I know that EEI is the Edison
4	Q And did you have an opportunity to ask him	4	Electric Institute and I know NV Energy is a member. I
04 : 26 5	questions the day of the webinar?	04 : 28 5	don't know who other members are.
6	A I did.	6	Q Following that call did you make a
7	Q And did you?	7	recommendation to your employer, to NV Energy, to your
8	A No.	8	executives about anything Mr. Owens had said?
9	Q Did other NV Energy people ask him questions?	9	A Not yet.
04 : 26 10	A Not that I recall.	04 : 28 10	Q You haven't yet?
11	Q Were there a group of NV Energy people	11	A That's correct.
12	listening to the webinar?	12	Q What did you do with the information?
13	A At least one other.	13	A I tried to digest it and I thought about how it
14	Q And who was that?	14	may impact resource planning in Nevada.
04 : 26 15	A Pat Egan.	04 : 29 15	Q Did Mr. Owens' information to you about the
16	Q At least one other or only one other?	16	recommendation to CEOs relate in any way to penetration
17	A I don't know. I know that there was at least	17	levels?
18	Pat Egan because I was in the room with him.	18	A It may have.
19	Q In other words, there could have been other	19	Q In other words, I want to be specific. Was
04 : 26 20	people on the call, but they would have been in their	04 : 29 20	there a threshold at which he thought the recommendation
21	own offices or a different location?	21	regarding the investigation that utility companies would
22	A There very well could have been.	22	take would be prudent or would be required?
23	Q You reached out to him by telephone?	23	A Not that I can recall.
24	A I reached out to Mr. Owens by e-mail and asked	24	Q Was your action following the call, which is
04 : 26 25	if I could ask him some questions about the study.	04 : 29 25	not doing anything with it by your testimony, not making
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1	Q When did that occur?	1	a recommendation to your employer might have anything to
2	A June or July of this year.	2	do with the fact that the penetration level did not
3	Q So in close proximity to the webinar?	3	relate to a relative or a comparable penetration level
4	A Yes.	4	in Nevada?
04 : 27 5	Q Who was on that call with you, the follow-up	04 : 30 5	A No.
6	call?	6	Q When Mr. Owens was talking about his
7	A To the best of my recollection NV Energy	7	recommendation, what was the purpose, why would he make
8	employees Jack McGinley, possibly Pat Egan. I can't	8	the recommendation to electric utility CEOs?
9	recall others. There may have been others.	9	A You would have to ask Mr. Owens. I don't know.
04 : 27 10	Q What was the subject of the call?	04 : 30 10	Q Either after the webinar or as a result of
11	A Distributed energy resource planning.	11	participating in the webinar did you get any materials
12	Q And what was the objective, why did you get	12	related to his topic of discussion?
13	Mr. Owens on the phone that day?	13	A No.
14	A I wanted to have the opportunity to understand	14	Q After you had the telephone call with
04 : 27 15	the recommendation that he was going to make to EEI	04 : 30 15	Mr. McGinley and maybe with Mr. Egan that was the
16	CEOs.	16	follow-up call to the webinar did Mr. Owens provide you
17	Q And what did he tell you about that	17	with any materials?
18	recommendation?	18	A No.
19	A It was a fairly technical discussion. As you	19	Q I want to go back to the discussion that we had
04 : 27 20	know, Mr. Owens -- or as you may know, Mr. Owens is an	04 : 31 20	regarding the E3 study, and I said to you did you
21	EE or an engineer. I don't recall much about the	21	discuss it with anybody and you said I might have
22	conversation other than the topic and that I reached out	22	discussed it with my wife. Do you remember that?
23	to him to understand the recommendation and how it might	23	A Yes.
24	impact resource planning in Nevada in the future.	24	Q I want to go back to discussions that you may
04 : 28 25	Q When you say it was a recommendation he was	04 : 31 25	have had regarding the E3 study.

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04 : 31	<p>1 Aside from the conversation with Ms. Cuneo,</p> <p>2 either by e-mail or by telephone did you speak with</p> <p>3 anyone else at staff?</p> <p>4 A Not to my recollection.</p> <p>5 Q Did you speak with anyone at the Commission?</p> <p>6 A Yes.</p> <p>7 Q Who?</p> <p>8 A It's identified in the response to SC 26. I</p> <p>9 spoke to Garrett Weir, Haley Williamson and Commissioner</p> <p>10 Noble.</p> <p>11 Q Okay.</p> <p>12 And did you speak to all three of them at the</p> <p>13 same time?</p> <p>14 A No.</p> <p>15 Q So you spoke to them independently?</p> <p>16 A That's correct.</p> <p>17 Q Now, Ms. Williamson is an assistant general</p> <p>18 counsel for the Public Utilities Commission?</p> <p>19 A Yes.</p> <p>20 Q When did you speak to Ms. Williamson in</p> <p>21 relation to the conversations with Ms. Cuneo?</p> <p>22 A Afterwards.</p> <p>23 Q Did you reach out to Ms. Williamson?</p> <p>24 A I did.</p> <p>25 Q What was the purpose of the call?</p>	04 : 34	<p>1 A That's when I called Mr. Weir back, because</p> <p>2 when I returned the call to Ms. Williamson she was out</p> <p>3 of the office so I asked Mr. Weir if he knew what the</p> <p>4 status of the study was.</p> <p>5 Q So following the conversation with Ms.</p> <p>6 Williamson you called her back --</p> <p>7 A Yes.</p> <p>8 Q -- to inquire again about the status, and when</p> <p>9 you couldn't get her you spoke with Mr. Weir?</p> <p>10 A That's correct.</p> <p>11 Q Now, Mr. Weir is her colleague, also an</p> <p>12 associate general counsel for the Commission; correct?</p> <p>13 A Yes.</p> <p>14 Q What did the conversation with Mr. Weir entail?</p> <p>15 A Same conversation. I asked if he understood or</p> <p>16 knew what the status of the study was.</p> <p>17 Q What did he tell you?</p> <p>18 A He said he would check with Ms. Mullen and get</p> <p>19 back to me.</p> <p>20 Q And Ms. Mullen is the executive director at the</p> <p>21 Commission; correct?</p> <p>22 A That's my understanding, yes.</p> <p>23 Q Did Mr. Weir get back to you?</p> <p>24 A I don't recall actually.</p> <p>25 Q In the response to SC 26 you also say that you</p>
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04 : 32	<p>1 A To ask what the status of the study was.</p> <p>2 Q And I'm sorry, the time frame of this? You</p> <p>3 said it was after the conversation with Ms. Cuneo, but</p> <p>4 when?</p> <p>5 A I believe it was August.</p> <p>6 Q This August?</p> <p>7 A Yes.</p> <p>8 Q 2016.</p> <p>9 What did she tell you?</p> <p>10 A She told me that Ms. Mullen was the primary</p> <p>11 contact at the Commission and that she was not aware of</p> <p>12 the status of the study. I think at that point it was</p> <p>13 proximate to the potential release of the study on</p> <p>14 August 21st in front of the legislative committee.</p> <p>15 Q So you think the call with Ms. Williamson was</p> <p>16 in close proximity to the actual release on August 21st?</p> <p>17 A To the release as -- to the intended or the</p> <p>18 planned release on August 21st, yes.</p> <p>19 Q And then is that the only conversation you had</p> <p>20 with Ms. Williamson?</p> <p>21 A Yes.</p> <p>22 Q And what else was discussed on that call?</p> <p>23 A That was it.</p> <p>24 Q Was there any intent to follow up with her or</p> <p>25 did she offer you an opportunity to follow up with her?</p>	04 : 36	<p>1 contacted Commissioner Noble at 2:00 p m. on August</p> <p>2 17th.</p> <p>3 A Yes.</p> <p>4 Q Did you call Commissioner Noble directly?</p> <p>5 A I did.</p> <p>6 Q What was the purpose of the call?</p> <p>7 A The purpose of the call was to determine or to</p> <p>8 ask if the Commission had received a copy of the study.</p> <p>9 Q It sounds like the calls with Ms. Williamson,</p> <p>10 Mr. Weir and Commissioner Noble may have occurred in</p> <p>11 very close proximity to one another, is that accurate?</p> <p>12 A To the best of my recollection, yes.</p> <p>13 Q Over what period of days do you think those</p> <p>14 three calls occurred?</p> <p>15 A No more than ten.</p> <p>16 Q And what did Commissioner Noble tell you?</p> <p>17 A He indicated that he would check and get back</p> <p>18 with me.</p> <p>19 Q And did he?</p> <p>20 A He did.</p> <p>21 Q When did he get back to you?</p> <p>22 A The same day.</p> <p>23 Q What did he tell you?</p> <p>24 A He told me that the study would be posted on</p> <p>25 the Commission's website that day.</p>

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04 : 37	<p>1 Q On August 17th?</p> <p>2 A Yes, that's my recollection.</p> <p>3 Q And did you discuss the results of the study?</p> <p>4 A No.</p> <p>5 Q Did you discuss anything about the content of</p> <p>6 the study?</p> <p>7 A No.</p> <p>8 Q Aside from the Commission personnel did you</p> <p>9 have a conversation with anybody else about the results</p> <p>10 of the study in advance of its release?</p> <p>11 A The results of the study, no.</p> <p>12 Q About the status of the study in advance of its</p> <p>13 release?</p> <p>14 A Yes.</p> <p>15 Q And who was that?</p> <p>16 A Do you have a calendar? Can I consult my</p> <p>17 calendar?</p> <p>18 Q Yes.</p> <p>19 A It was actually August 19th.</p> <p>20 Q What was August 19th?</p> <p>21 A I spoke to Ms. Stokey in the morning and I</p> <p>22 can't remember the specific day, the day the legislative</p> <p>23 committee agenda was published and the E3 study update</p> <p>24 was not contained on the agenda, which is why I</p> <p>25 contacted Commissioner Noble to see if the study had</p>	04 : 41	<p>1 training, that says, you know, full requirements</p> <p>2 contract is one where one party promises to deliver and</p> <p>3 provide all of the units that another party requests.</p> <p>4 Q What customers have contracts with the utility</p> <p>5 company?</p> <p>6 A Well, all customers have a tariff and a tariff</p> <p>7 is effectively in many ways a contract.</p> <p>8 Q Again this is your terminology?</p> <p>9 A Yes, defines the rights and obligations of both</p> <p>10 parties.</p> <p>11 Q Let's use for a minute the D-1 tariff, one of</p> <p>12 the residential customer class tariffs for Sierra</p> <p>13 Pacific Power Company, okay?</p> <p>14 A Sure.</p> <p>15 Q That's our reference point.</p> <p>16 There is no requirement in that tariff that any</p> <p>17 customer who is a customer that takes service pursuant</p> <p>18 to that tariff consume any minimum number of kilowatt</p> <p>19 hours, is there?</p> <p>20 A No.</p> <p>21 Q In other words, if a customer bolts up their</p> <p>22 house and leaves on a trip around the world for a year,</p> <p>23 at the end of the year what they would have paid on a</p> <p>24 monthly basis was simply the basic service charge?</p> <p>25 A Yes.</p>
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04 : 39	<p>1 been completed and delivered to the Commission.</p> <p>2 Q Was the timing of your calls and your inquiries</p> <p>3 regarding the release of the study as a result of the</p> <p>4 upcoming interim energy committee meeting?</p> <p>5 A Yes.</p> <p>6 Q I want to go back to some questions that were</p> <p>7 asked regarding the partial requirements reference in</p> <p>8 your testimony. It's in a footnote, and I will find</p> <p>9 that for you, page 5 in response to Q and A 7. You have</p> <p>10 got footnote 4 at the bottom of page 5.</p> <p>11 Footnote 4 says the changes to basic service</p> <p>12 charges also are consistent with a pricing structure</p> <p>13 that more effectively allocates joint and common costs</p> <p>14 to all customers including partial requirements</p> <p>15 customers.</p> <p>16 Do you see that?</p> <p>17 A Yes.</p> <p>18 Q We talked about partial requirements customers</p> <p>19 and my recollection of how you described them is it's</p> <p>20 anyone who doesn't have a full requirements contract</p> <p>21 with the utility company?</p> <p>22 A A customer who purchases some, but not all of</p> <p>23 their electric energy needs from the company and</p> <p>24 therefore doesn't have a contract that's essentially --</p> <p>25 these are my terms based on my antiquated legal</p>	04 : 42	<p>1 MS. DRAKULICH: Okay.</p> <p>2 Would you mind if we took another five minute</p> <p>3 break? I think we're about done.</p> <p>4 MS. ELLIOT: I'm fine with that.</p> <p>5 (A recess was taken.)</p> <p>6 BY MS. DRAKULICH:</p> <p>7 Q I want to go back to SC 26, which has been</p> <p>8 marked as Exhibit 11 to the deposition. A question for</p> <p>9 you, Mr. Elicegui, in paragraph 2 of that response below</p> <p>10 the table there are two sentences, non-confidential</p> <p>11 attachments are enclosed with this response. The second</p> <p>12 sentence is note that document 13, Societal Emission</p> <p>13 Costs, was not transmitted to E3.</p> <p>14 If it's listed why wasn't it transmitted?</p> <p>15 A Because it was not completed.</p> <p>16 Q Tell me what the societal emission costs are?</p> <p>17 A NERA, which is National Economic Research</p> <p>18 Associates, I believe, prepares a report in every</p> <p>19 integrated resource plan filing and the societal costs</p> <p>20 in this case refer to that report that NERA prepares.</p> <p>21 Q And were they ultimately completed and provided</p> <p>22 to E3?</p> <p>23 A Not to my knowledge.</p> <p>24 Q So no updated information regarding the</p> <p>25 societal emission costs were transmitted to E3 for the</p>

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04 : 52	<p>1 updated E3 study?</p> <p>2 A Not to my knowledge from NV Energy.</p> <p>3 Q Okay.</p> <p>4 Can I take that as no or might they have been</p> <p>5 and you just don't know?</p> <p>6 A You should take that as they might have been,</p> <p>7 but I don't know because Mr. Doubek is responsible for</p> <p>8 maintaining the spreadsheet, which I asked him to</p> <p>9 create, to log all file transfers to E3.</p> <p>10 Q So you supplemented this DR today with</p> <p>11 information that was provided to me. Is it possible</p> <p>12 that the finalized societal emission costs file was</p> <p>13 included in that?</p> <p>14 A It's possible.</p> <p>15 MS. DRAKULICH: Counsel, I see you nodding your</p> <p>16 head no.</p> <p>17 MS. ELLIOT: The answer to the question is no,</p> <p>18 it was not included. It wasn't provided.</p> <p>19 MS. DRAKULICH: And it has not been provided?</p> <p>20 MS. ELLIOT: Not by NV Energy, no.</p> <p>21 MS. DRAKULICH: Thank you.</p> <p>22 BY MS. DRAKULICH:</p> <p>23 Q Mr. Elicegui, your previous answer may have</p> <p>24 answered this question, but if no societal emission</p> <p>25 costs were provided to E3 do you know whether or not the</p>	04 : 55	<p>1 MS. ELLIOT: Objection, privilege.</p> <p>2 MS. DRAKULICH: I actually don't think that's</p> <p>3 privileged. It's just a timing question.</p> <p>4 MS. ELLIOT: Actually it is.</p> <p>5 MR. BENDER: Can we clarify what privilege?</p> <p>6 MS. ELLIOT: Attorney-client privilege.</p> <p>7 MR. BENDER: That's the same privilege you've</p> <p>8 asserted to all questions on that document?</p> <p>9 MS. ELLIOT: Correct, it's litigation strategy.</p> <p>10 MR. BENDER: Well, that's a different</p> <p>11 privilege. Is it litigation --</p> <p>12 MS. ELLIOT: It's work product and</p> <p>13 attorney-client privilege.</p> <p>14 MR. BENDER: Both objections to all of those</p> <p>15 questions?</p> <p>16 MS. ELLIOT: Questions about what's being</p> <p>17 prepared to be presented when in what case for what</p> <p>18 purpose. Objection, privilege.</p> <p>19 MS. DRAKULICH: At this point I know other</p> <p>20 counsel wanted to participate for purposes of at least</p> <p>21 listening to the Q and A that I had planned for you,</p> <p>22 Mr. Elicegui.</p> <p>23 I wanted to give counsel for Vote Solar, staff</p> <p>24 and BCP an opportunity to ask questions if they had any</p> <p>25 since we still have some time left.</p>
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04 : 54	<p>1 societal emission costs that were provided in 2014 were</p> <p>2 used, you don't know if E3 updated those of their own</p> <p>3 accord?</p> <p>4 A I don't know.</p> <p>5 Q Okay.</p> <p>6 A E3 is a consulting firm and I'm sure they have</p> <p>7 access to environmental costs and can do their own</p> <p>8 analysis, but I don't know.</p> <p>9 Q I want to go back again to the draft response</p> <p>10 to the SolarCity/NRDC report. What is the draft</p> <p>11 response?</p> <p>12 A It is a critique and a response to the report.</p> <p>13 Q And is it being prepared internally at the</p> <p>14 utility company?</p> <p>15 A Yes.</p> <p>16 Q And it's in draft form now?</p> <p>17 A Yes.</p> <p>18 Q I don't suppose you would be willing to give me</p> <p>19 a copy of that pursuant to a discovery request?</p> <p>20 A No.</p> <p>21 MS. ELLIOT: No, that is the same objection on</p> <p>22 privilege.</p> <p>23 BY MS. DRAKULICH:</p> <p>24 Q Is there a time frame within which the draft</p> <p>25 response will be completed as a final response?</p>	04 : 56	<p>1 MR. BENDER: I have a few follow-up.</p> <p>2 MR. NORRIS: We don't have any. I can</p> <p>3 represent that now.</p> <p>4</p> <p>5 EXAMINATION</p> <p>6 BY MR. BENDER:</p> <p>7 Q Can you hear me from here?</p> <p>8 A Yes.</p> <p>9 Q Mr. Elicegui, Dave Bender for Vote Solar. I</p> <p>10 just have a few follow-up questions, a couple of</p> <p>11 foundation questions for that privilege.</p> <p>12 The white paper -- If I call it the white paper</p> <p>13 you know what I'm referring to, the response to</p> <p>14 NRDC/SolarCity's paper?</p> <p>15 A Yes.</p> <p>16 Q It's a draft at this point; is that correct?</p> <p>17 A Yes.</p> <p>18 Q Is it prepared at the direction of counsel?</p> <p>19 A Yes.</p> <p>20 Q Is it being prepared in anticipation of filing</p> <p>21 it in support of testimony in any contested proceeding?</p> <p>22 A It's being prepared in support or in</p> <p>23 anticipation of potential use in a contested proceeding.</p> <p>24 Q Is it being prepared for any other purpose such</p> <p>25 as to be released publicly as the SolarCity/NRDC paper?</p>

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04:57	1	A I don't know.	05:00	1	marginal energy cost.
	2	Q Has there been discussions about the		2	Q What does that represent?
	3	preparation of that white paper with anyone within the		3	A Marginal energy cost represents the cost of
	4	company where an attorney was not present?		4	producing the next kilowatt hour or providing a next
	5	A I don't know because I have not been privy to		5	kilowatt hour.
04:57	6	every discussion.	05:01	6	Q And that's from the marginal unit at that hour?
	7	Q In any of the discussions you have been privy		7	A Not necessarily.
	8	to has an attorney, other than yourself, always been		8	Q Do you know how the Pro Mod model determines
	9	present?		9	what the marginal cost of producing energy is for a
	10	A No.		10	specific outlet?
04:58	11	Q Has anyone outside of the company been present	05:01	11	A It is the cost of producing or providing or
	12	or part of any discussion about preparation of that		12	procuring the next kilowatt hour.
	13	white paper?		13	Q Do you know how that is determined by the
	14	A Not to my knowledge.		14	model?
	15	Q I want to go back and follow-up on a discussion		15	A And it is determined through a complex unit
04:58	16	you had earlier on calculating the excess energy rate.	05:01	16	commitment and dispatch methodology that also has the
	17	Do you recall that discussion?		17	ability to identify market purchases as an alternative
	18	A I recall several, yes.		18	to the generation of electricity using a resource owned
	19	Q Okay.		19	by the company or dispatchable resource.
	20	And we referenced in your testimony where you	05:01	20	Q Can you tell from the model what the marginal
04:58	21	pointed to where Mr. Pollard had done the calculation or		21	resource is or what the next unit of energy would be
	22	referred to doing the calculation in his testimony. Do		22	provided by?
	23	you recall that?		23	A Me personally, no.
	24	A Yes.		24	The members of the production cost modeling
04:59	25	Q And you described three things that went into		25	team, because the unit commitment and dispatch model is
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04:59	1	that calculation, a capacity value, a marginal energy	05:02	1	making a decision regarding economics, comparing two
	2	value and results from an RFP in a competitive bid		2	alternatives or at least two alternatives, which is the
	3	process for renewable energy; is that right?		3	production of energy versus the purchase of energy from
	4	A Those are the three items that go into the		4	an available market hub, I assume that the team could
	5	formation of the long-term avoided cost, which is		5	tell whether the marginal energy cost in a given hour is
04:59	6	separate and apart from the calculation.	05:03	6	the result of the dispatch of a company owned unit, a
	7	Q And the calculation being for the excess energy		7	dispatchable unit or purchased from a market.
	8	rate?		8	Q And it could tell, if a company unit, it could
	9	A The calculation uses the long-term avoided cost		9	tell which company unit would be that marginal unit
	10	as the foundation for the development of the excess	05:03	10	during that hour?
05:00	11	energy rate.		11	A Theoretically, yes.
	12	Q Let's talk about the long-term avoided cost		12	Q And those costs are at the generator bus or are
	13	piece first. Do you know how the marginal energy price		13	those costs someplace else on the system?
	14	portion of the long-term avoided cost is derived?		14	A I don't know.
05:00	15	A Production cost modeling.	05:03	15	Q Okay.
	16	Q And that's the Pro Mod modeling?		16	So you don't know whether any losses are
	17	A Yes.		17	calculated into the marginal energy rate; is that right?
	18	Q And those are the results -- those are the		18	A I do not. I know that the excess energy
	19	hourly marginal energy costs which is an output of that	05:03	19	calculation uses the long-term avoided cost and grosses
05:00	20	model; is that correct?		20	out the long-term avoided costs for line losses.
	21	A Pro Mod is a unit dispatch and unit commitment		21	Q I want to come back that and then I want to
	22	model which uses a number of assumptions to simulate the		22	address the other points of the long-term avoided cost.
	23	dispatch and commitment of units to meet load, including		23	A Certainly.
05:00	24	the option to purchase from energy, and one of the		24	Q Let's talk about the capacity value used in the
	25	outputs of any production cost modeling run is the		25	long-term avoided cost calculation. We talked about it

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05:04	1 briefly, but do you have an understanding of how that 2 capacity value is determined? 3 A I have a rudimentary understanding, yes, 4 because the team that determines that value reports to 5 me.	05:08	1 capacity cost in dollars per kilowatt month is 2 calculated into dollars per megawatt hour based on a 7 x 3 16 on-peak period for July, August and September; is 4 that correct? 5 A Paragraph 2 provides under both sections using 6 the forecasting capacity cost described in the Load 7 Forecast and Market Fundamentals Volume, convert the 8 forecasted capacity cost from dollars per kW month to 9 dollars per megawatt hour based on a 7 x 16 hours
05:04	6 Q And what is your understanding of how the 7 capacity value is calculated? 8 A It's described in our integrated resource 9 plans, but it essentially uses the cost of new entry and 10 ultimately blends into the cost of new entry using 11 market based information.	05:08	10 on-peak period for the months of July, August and 11 September. 12 Q Do you know why a 7 x 16 hour on-peak period is 13 used?
05:04	12 Q What do you mean by market based information? 13 A Sorry, could you restate that? 14 Q What do you mean by market based information? 15 Do you mean the capped versus uncapped calculation?	05:08	14 A I do not. 15 Q Do you know who made that decision? 16 A Members of the resource planning team. 17 Q Do you have an opinion on whether that is a 18 correct way to calculate a capacity value?
05:05	16 A No, no. 17 Market based information such as bids or quotes 18 for near term capacity procurement. 19 MR. BENDER: Can we mark this? 20 (Exhibit 13 was marked.) 21 BY MR. BENDER: 22 Q Mr. Elicegui, you have in front of you what has 23 been marked as Exhibit 13. I will represent that this 24 is only part of, but do you recognize this as part of 25 the IRP filing in Docket 15-08001?	05:09	19 A I have not formed an opinion. 20 Q Do you agree that there are other ways to 21 determine how to assign the capacity cost to peak hours? 22 A Yes. 23 Q After the capacity cost in dollars per kilowatt 24 month is converted or calculated for on-peak periods in 25 step two the capacity costs are then averaged across all
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05:06	1 A Yes. 2 Q And on the second page of this exhibit, but 3 page 47 in the lower left-hand corner, do you see that? 4 A Yes.	05:10	1 hours of the day for three months; is that correct? 2 A Could you restate the question? 3 Q Sure. 4 I'm looking at steps 3 and 4 under uncapped 5 long-term avoided costs.
05:07	5 Q Beginning section 7, long-term avoided costs 6 and running through page 51, is that a description of 7 how the long-term avoided costs were calculated 8 including the capacity value? 9 A In part.	05:10	6 A Yes. 7 Q What is being discussed there is that the 8 capacity costs for 16 peak hours for every day of the 9 month for July, August and September are added and then 10 in step 4 all hours of the month are averaged to 11 determine a monthly uncapped long-term avoided cost for 12 each month. Do you see that?
05:07	10 Q What's the part that is not included? 11 A Section 2 or the second bullet point under 12 uncapped long-term avoided costs refers to the 13 forecasted capacity cost described in the Load Forecast 14 and Market Fundamentals Volume that describes the 15 preparation of the forecasted capacity cost or the 16 forward capacity cost curve prepared by the resource 17 planning team.	05:11	13 A That is what point 4 states, yes. 14 Q And is that giving you a dollar per megawatt 15 hour uncapped long-term avoided cost? 16 A Yes. 17 Q So every hour of the month would have the same 18 dollar per megawatt hour value; is that right?
05:07	18 Q So those two pieces, the Load Forecast and 19 Market Fundamentals Volume of the RFP proceeding and 20 this section, section 7, discusses how the long-term 21 avoided cost is calculated; is that correct? 22 A Yes.	05:11	19 A I don't know. 20 Q That is what average for the month means; 21 right? 22 A Point 4 says average of all hours in the month 23 to determine the average monthly uncapped long-term 24 avoided cost for each month.
05:07	23 Q And in the second paragraph under uncapped, 24 actually both uncapped long-term avoided costs and 25 capped long-term avoided costs it discusses how a	05:11	23 Q So if we're assigning the same dollar per

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05:11	<p>1 megawatt hour value for every hour that does not treat</p> <p>2 the hours, the peak hours as having more value than</p> <p>3 off-peak hours during the month; is that right?</p> <p>4 A I don't know. I don't know if that is how the</p> <p>5 calculation is performed ultimately. I know what this</p> <p>6 document states.</p> <p>7 By the way, it also assigns capacity to periods</p> <p>8 in a month where capacity may not be necessary.</p> <p>9 Q What month is that?</p> <p>10 A Every month. Every month where you assign a</p> <p>11 capacity value, you may assign capacity value to hours</p> <p>12 of the day and to hours in the month where you don't</p> <p>13 have a need for capacity.</p> <p>14 Q You're saying this calculation does that?</p> <p>15 A The averaging does, yes.</p> <p>16 Q How does that happen?</p> <p>17 A If you create an average, if you create an</p> <p>18 average and assign that to every hour of the month</p> <p>19 you're taking the capacity value for those three months</p> <p>20 and you're assigning it to hours of the day where there</p> <p>21 may not be a need for capacity. It's the corollary to</p> <p>22 the point you were making.</p> <p>23 Q And that's what using a monthly average value</p> <p>24 does?</p> <p>25 A Any average spreads a value across units.</p>	05:15	<p>1 A I believe so.</p> <p>2 Q If it were correctly done do you think it</p> <p>3 should -- the time of use excess energy rate should</p> <p>4 avoid using annual or hourly --</p> <p>5 A I haven't formed an opinion on that.</p> <p>6 Q Can you think of any reason not to use annual</p> <p>7 -- excuse me, can you think of any reason to calculate</p> <p>8 the time of use excess energy rate using annual or</p> <p>9 monthly averages?</p> <p>10 A If there were a decision made for</p> <p>11 administrative efficiency, yes, but generally I would</p> <p>12 assign costs to an hour and tend to, where possible,</p> <p>13 assign costs to the appropriate hour.</p> <p>14 Q That's more accurate using granular hourly cost</p> <p>15 information?</p> <p>16 A It can be more accurate.</p> <p>17 Q And the only reason not to use it would be if</p> <p>18 there is an administrative efficiency that would trump</p> <p>19 the accuracy value?</p> <p>20 A I don't know if that's the only reason, but</p> <p>21 that's the reason that I can think of today.</p> <p>22 Q The only reason you can think of today?</p> <p>23 A It's the only reason I can think of today.</p> <p>24 Q Let's talk about the capped value. The</p> <p>25 difference between a capped long-term avoided cost and</p>
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05:13	<p>1 Q And the other effect of that is it decreases</p> <p>2 the value of the periods that may be on-peak?</p> <p>3 A It may.</p> <p>4 Q It has to?</p> <p>5 A Mathematically, yes.</p> <p>6 Q And if you use an annual average you similarly</p> <p>7 spread a value, a peak value across months where</p> <p>8 capacity may not be required?</p> <p>9 A Yes, and if you use a time of use base excess</p> <p>10 energy credit and you take the hours associated with the</p> <p>11 specific time of use you do not use an annual average or</p> <p>12 a monthly average.</p> <p>13 Q If you calculate the time of use value without</p> <p>14 using averages in the calculation?</p> <p>15 A If you use hourly costs, yes.</p> <p>16 Q Does the time of use excess energy cost rate</p> <p>17 proposed by the company use hourly values or does it use</p> <p>18 monthly averages?</p> <p>19 A I believe it uses hourly values otherwise you</p> <p>20 can't assign values to certain time of use periods</p> <p>21 different from values assigned to other time of use</p> <p>22 periods.</p> <p>23 Q So you think the time of use excess energy rate</p> <p>24 uses hourly values without using annual or monthly</p> <p>25 averages; is that right?</p>	05:16	<p>1 an uncapped long-term avoided cost is, if I understand</p> <p>2 correctly, there was a bid, resource bid, a solar</p> <p>3 resource bid that had a cost, a price to its generation</p> <p>4 as well as a generation curve and that resource, the</p> <p>5 solar resource price was used instead of the uncapped</p> <p>6 long-term avoided cost value for those hours when the</p> <p>7 solar resource was projected to generate; is that right?</p> <p>8 A A couple of items.</p> <p>9 One, it happened to be a solar resource because</p> <p>10 that was the next best bid. It's not foreordained that</p> <p>11 it's a solar resource.</p> <p>12 Two, I believe you stated it was used in the</p> <p>13 hour that the solar resource was producing. A</p> <p>14 comparison of the two costs, the calculated cost and the</p> <p>15 price from that contract is used and the lower of the</p> <p>16 two is selected.</p> <p>17 Q You say next best. You listed two solar</p> <p>18 projects where the PPA price was used for this; correct?</p> <p>19 A No, the two solar projects that I'm referring</p> <p>20 to were the two projects that were selected and that the</p> <p>21 company pursued.</p> <p>22 Q So it's not a next best bid, it's the winning</p> <p>23 bid that was used?</p> <p>24 A No, those were not the bids that were used.</p> <p>25 It's the next best bid.</p>



		Page 125			Page 127
05:18	1	Q Okay.	05:22	1	into the model data, what unit, what generation unit or
	2	So when you identified the Boulder Solar and		2	power purchase or market purchase is setting that
	3	the First Solar Playa II, were those the winning bidders		3	marginal energy price; right?
	4	in those two RFPs?		4	A I believe so.
	5	A Those were the two projects that the company		5	Q And so if we go into the model, the current
05:18	6	brought forward for Commission approval, therefore the	05:22	6	16-07001 IRP Pro Mod model and we find hours where
	7	winning bidders in the RFP.		7	Boulder Solar and First Solar's Playa II projects are
	8	Q So there were two other bids behind those two		8	producing, are you with me so far?
05:18	9	with a PPA price that was used for the capped long-term	05:22	9	A Yes.
	10	avoided cost; is that right?		10	Q And the marginal energy price is being set by a
	11	A No.		11	resource other than those two resources, are you with me
05:19	12	The second project, Playa II, was the next best	05:22	12	in this scenario so far?
	13	bid in the first RFP. So there is one project in the		13	A Those resources can never set the marginal
	14	second RFP. My understanding is that was used in the		14	energy price.
	15	capping methodology or in what we call the capping		15	Q If the marginal energy price is being set
	16	methodology, but for the comparison of two values to		16	higher than the PPA price for those two resources then
05:19	17	determine which one is lower. So it was one resource in	05:23	17	some other resource is the marginal resource for those
	18	the second RFP.		18	hours; right?
	19	Q And has that been identified anywhere in the		19	A When the price is lower some other resource is
	20	docket yet what that next best bid was?		20	the marginal resource and when the price is higher
	21	A It was identified in the -- I believe it was		21	another resource is the marginal resource because those
05:20	22	identified in 15-08011, which is the docket in which the	05:23	22	two units, they are not dispatchable. They cannot set
	23	long-term avoided cost for Sierra was approved.		23	the marginal energy cost.
	24	Q Was that also a solar PV project?		24	Q So the marginal energy cost of the company can
	25	A That's my understanding.		25	be higher than the PPA price for those two generation
		Page 126			Page 128
05:20	1	Q Were the Boulder Solar and First Solar Playa II	05:23	1	sources. So let me rephrase that.
	2	projects used as inputs to the Pro Mod modeling for the		2	The marginal energy price to the company can be
	3	pending IRP? So are they in the Pro Mod -- are they		3	higher than the PPA price for Boulder Solar or the PPA
	4	input to Pro Mod for the 16-07001 IRP proceeding?		4	price for First Solar Playa II?
	5	A Yes.		5	A Yes.
05:21	6	Q So if we run Pro Mod into the future those will	05:24	6	Q Do you know whether Pro Mod outputs -- has
	7	be resources that can be selected or forced into the		7	hours where the marginal energy price is higher than
	8	dispatch model; right?		8	those two PPA prices?
	9	A Those are non-dispatchable resources so in the		9	A I don't know that about the Pro Mod outputs in
	10	unit commitment model each of those resources is		10	16-07001.
05:21	11	committed when it is available based on its supply	05:24	11	MS. ELLIOT: We have a hard stop at 5:30. We
	12	table.		12	have a plane to catch.
	13	Q And so if we run Pro Mod for any hours where		13	BY MR. BENDER:
	14	those resources are committed and generating and the		14	Q Okay, let me ask a quick question then.
	15	marginal energy cost is something higher than the PPA		15	We had talked about earlier the line loss and I
05:21	16	price for those resources that means that some other	05:25	16	think your testimony was that the long-term avoided
	17	generation or power source is the marginal resource for		17	costs were grossed up to account for line losses; is
	18	that hour; right?		18	that right?
	19	A Can you restate the question?		19	A Yes.
	20	Q Yes.		20	Q Do you know what line loss value was used?
05:21	21	So earlier we talked about how Pro Mod will	05:25	21	A I do not.
	22	give you a marginal energy price for the next unit of		22	Q Do you know whether an average, annual average
	23	energy; right?		23	line loss value was used?
	24	A Yes.		24	A I do not know.
	25	Q And it will probably tell you, if you can dig		25	Q Do you know why the long-term avoided cost

Page 129		Page 131	
05:25	<p>1 values were grossed up to account for line losses?</p> <p>2 A Yes.</p> <p>3 Q Why?</p> <p>4 A Because the Commission did that, asked the</p> <p>5 company to gross up the long-term avoided cost to</p> <p>6 establish the excess energy credit in 15-07041.</p> <p>7 Q Do you know why that request was made?</p> <p>8 A Presumably because the long-term avoided cost</p> <p>9 represents the value or the cost of generation at the</p> <p>10 source and not the sink and it was the Commission's view</p> <p>11 that a resource located at the sink may avoid line</p> <p>12 losses and, therefore, should be valued differently than</p> <p>13 a resource not located at the sink.</p> <p>14 Q Who made the decision or who -- Mr. Pollard did</p> <p>15 the calculation to gross up; correct?</p> <p>16 A That's correct.</p> <p>17 Q Do you know who did the calculation of the line</p> <p>18 losses that were used?</p> <p>19 A I do not.</p> <p>20 MR. BENDER: I will stop now at 5:30.</p> <p>21 MS. DRAKULICH: It's actually 5:26. I have a</p> <p>22 couple of questions just as a follow-up to his.</p> <p>23 THE WITNESS: Okay.</p> <p>24 ///</p> <p>25 FURTHER EXAMINATION</p>	05:28	<p>1 Q So it doesn't default in that instance to the</p> <p>2 solar price because the solar can't produce at that</p> <p>3 hour?</p> <p>4 A It only -- It doesn't have two items to compare</p> <p>5 because one is zero, it's not producing, therefore it</p> <p>6 uses the calculated cost.</p> <p>7 Q So in hours of the day where the solar project</p> <p>8 will not produce the model does not use that PPA price?</p> <p>9 A The calculation does not use that PPA price,</p> <p>10 that's correct.</p> <p>11 Q Okay.</p> <p>12 A Is that it?</p> <p>13 Q I do have one more question.</p> <p>14 Do you remember the name of the EEI document</p> <p>15 that had the term private generation in it, just the</p> <p>16 name of the document?</p> <p>17 A I don't.</p> <p>18 Q You said you might take a look on your phone to</p> <p>19 see if you could find that?</p> <p>20 A Okay.</p> <p>21 I can't find it on my phone.</p> <p>22 MS. DRAKULICH: Thank you.</p> <p>23</p> <p>24 --oOo--</p> <p>25</p>
Page 130		Page 132	
05:27	<p>1 BY MS. DRAKULICH:</p> <p>2 Q You were asked about the capped long-term</p> <p>3 avoided cost and it talks about in number 4, and this is</p> <p>4 in Exhibit 13, comparing the hourly marginal energy</p> <p>5 costs with the added capacity to the supply curve and</p> <p>6 pricing of next least cost bid received in the company's</p> <p>7 most recent request for proposal.</p> <p>8 I believe counsel for Vote Solar said to you in</p> <p>9 the event that the RFP is lower and it's a solar project</p> <p>10 are the hours for that lower priced solar project</p> <p>11 inputted for the hours that the solar project would</p> <p>12 produce or for every hour and I believe your response</p> <p>13 was for every hour. Is that accurate?</p> <p>14 A No.</p> <p>15 Q What is the input for the lower priced --</p> <p>16 A A capping mechanism where the mechanism that</p> <p>17 compares two costs only occurs when the next best bid</p> <p>18 would be producing.</p> <p>19 So it's only for the hours when the next best</p> <p>20 resource, which in this case was the solar PV project,</p> <p>21 would be producing energy. If the calculated cost</p> <p>22 exceeds the PPA price and the unit is not producing, in</p> <p>23 other words at, let's say, 7 x 16 runs to hour 20 of the</p> <p>24 day, 7:00 p.m., then the calculated cost is used and not</p> <p>25 the PPA price.</p>	05:27	<p>1</p> <p>2</p> <p>3 SHAWN ELICEGUI</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10 Subscribed and sworn to before me</p> <p>11 this _____ day of _____, 2016.</p> <p>12</p> <p>13</p> <p>14</p> <p>15 Notary</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>

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1 STATE OF NEVADA )  
2 ) ss.  
COUNTY OF WASHOE )

3

4 I, JANET MENGES, a notary public in and for the  
5 County of Washoe, State of Nevada, do hereby certify;

6 That on Tuesday, September 6, 2016, at the hour of  
7 1:37 p.m. of said day, at 100 West Liberty Street, Reno,  
8 Nevada, personally appeared SHAWN ELICEGUI, who was duly  
9 sworn by me to testify the truth, the whole truth, and  
10 nothing but the truth, and thereupon was deposed in the  
11 matter entitled herein;

12 That said deposition was taken in verbatim stenotype  
13 notes by me, a Certified Court Reporter, and thereafter  
14 transcribed into typewriting as herein appears;

15 That the foregoing transcript, consisting of pages 1  
16 through 134, is a full, true and correct transcript of  
17 my stenotype notes of said deposition to the best of my  
18 knowledge, skill and ability.

19

20

21 DATED: At Reno, Nevada this 9th day of September, 2016.

22

23

24 JANET MENGES, CCR #206 \_\_\_\_\_

25

Page 134

1 STATE OF NEVADA )  
2 ) ss.  
COUNTY OF WASHOE )

3

4

5 I, \_\_\_\_\_, a  
6 notary public in and for the County of  
7 \_\_\_\_\_, do hereby certify:

8 That on the \_\_\_\_\_ day of  
9 \_\_\_\_\_, 2016, before me  
10 personally appeared the witness whose deposition appears  
11 herein;

12 That the deposition was read to or by the  
13 witness;

14 That any changes in form or in substance  
15 desired by the witness were entered upon the deposition  
16 by the witness;

17 That the witness thereupon signed the  
18 deposition under penalty of perjury.

19 DATED: At \_\_\_\_\_ this  
20 day of \_\_\_\_\_, 2016.

21

22

23

24

25



September 23, 2016

McDonald Carano  
100 West Liberty Street, #1000  
Reno, Nevada 89501

Attention: Kathleen Drakulich, Esq.

Re: Application of SPPC dba NV Energy

Dear Ms. Drakulich:

The original deposition of Shawn EliceGUI, taken September 6, 2016, was processed on September 9, 2016 and sent to Ms. Elizabeth Elliot per instructions provided at the close of the deposition.

Ms. Elliot's office returned the attached copies of the corrections Mr. EliceGUI made to his original deposition since then. Also attached is a copy of his signature page. If you have any questions, please do not hesitate to get in touch with us.

Thank you,

Bonanza Reporting

cc: David Bender, Esq.  
Samuel S. Crano, Esq.  
Elizabeth Elliot, Esq.  
David Norris, Esq.

NV Energy

Shawn EliceGUI

Page 5

	ATTORNEY'S NOTES/CORRECTIONS	
	PAGE	LINE
1		
2	<u>18</u>	<u>8</u>
3		
4	<u>20</u>	<u>15</u>
5	<u>22</u>	<u>14</u>
6	<u>47</u>	<u>5</u>
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8	<u>114</u>	<u>24</u>
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1 A Yes, we reprinted it for reading purposes.

2 Q Can you tell me what you used this document for  
3 in the preparation of your testimony?

01:56 4 A First there is a year's, 2016, worth of data  
5 that is not included on this spreadsheet.

6 Q Say that again?

7 A There's one year's worth of data as well as two  
8 ~~months~~<sup>9</sup> of projections that are not included on this  
9 ~~A quarters~~ spreadsheet and it's the rates that were effective April  
01:57 10 1, 2016, July 1, 2016, the rates that will become  
11 effective October 1, 2016, and the projection of the  
12 base tariff energy rate and the base tariff general rate  
13 changes that will become effective January 1, 2017.

14 Q For what purpose did you use the information in  
01:57 15 Schedule D-1 Domestic Service?

16 While you're looking for that I will ask the  
17 court reporter to mark the 11 by 17 version as the  
18 exhibit next in order which I show as 6.

19 (Exhibit 6 was marked.)

01:57 20 THE WITNESS: I used the information contained  
21 in that spreadsheet to prepare a chart, which is Chart  
22 Elicegui Direct-1.

23 BY MS. DRAKULICH:

24 Q On which page of your testimony?

01:58 25 A Page 6 and to reach a conclusion on page 5 of

02:00      1      were in effect on that date. The rate elements that  
2      were in effect on July 1, 2016. The rate elements that  
3      will be in effect on October 1, 2016, including changes  
4      due to the annual deferred energy filing, and the rate  
5      elements that will be in effect, if this application is  
6      approved based on a fuel and purchased power forecast  
7      that was available to me at the time of this filing.

02:00      8            Q      When you say rate elements are you referring to  
9      the headings in the categories on Schedule D-1 that are  
10     customer charge, BTGR and BTER?

02:00      11           A      I'm referring to each of the rate elements,  
12     which includes the customer charge, the base tariff  
13     general energy rate, which is a volumetric rate, the  
14     base tariff energy rate, which is a volumetric rate, the  
15     TRED or the ~~transfer of~~ renewable energy development  
16     <sup>A trust for</sup> charge, which also is a volumetric rate, the renewable  
17     energy program rate or REPR, the universal energy  
18     charge, UEC, the deferred energy accounting adjustment,  
19     and the energy efficiency adjustment, together with an  
20     additional piece of information, which is the average  
21     usage from the rate effective periods for the D-1  
22     customer class.

02:01      23           Q      What is the importance of that information to  
24     this sheet?

02:01      25           A      I'm sorry, which piece of information?

1 11.

2 Q Does the discussion actually begin on page 10  
3 at line 3, I believe that Sierra is the lead into that  
4 paragraph?

02:03 5 A The question begins on page 9, question 13, why  
6 is Sierra requesting that the Commission not change the  
7 electric division's core operations revenue requirement.  
8 The answer starts on line 20 of that page, continues on  
9 to page 10 with a chart appearing on page 11.

02:03 10 Q Why did you use the Texas Coalition for  
11 Affordable Power in your testimony?

12 A Because I state in my testimony that the report  
13 indicates that residential rates in the State of Nevada  
14 have had the second lowest ~~decrease~~ <sup>increase</sup> over the period of  
02:04 15 2012 through 2013.

16 Q Did you review any other reports related to  
17 this subject matter before deciding to use the Texas  
18 report that is Exhibit 7?

19 A No.

02:04 20 Q Did you review any other information on this  
21 topic, in other words on the topic of electricity prices  
22 and how the utility fairs with regard to other utilities  
23 before deciding to use the Texas report in your  
24 testimony?

02:04.. 25 A Utility prices or price increases? I don't



1 Q Okay.

2 Who assisted you with the preparation of this  
3 again and who might know that?

4 A People whom assisted with the preparation are

03:24 5 ~~V Marc~~ Mark Reyes, who created the chart based on the data that  
6 I sent him, which is here.

7 Q ~~Mark~~ Reyes?  
~~4 Marc~~

8 A Yes, that's the person who assisted me in the  
9 preparation of the chart. I don't know the answer to  
03:24 10 your second question. I don't understand the question.

11 Q My question was simply who assisted you in  
12 preparing the chart and the second part of that question  
13 was who might know the answer to the question that I  
14 asked you?

03:24 15 A The question being the impact of energy  
16 efficiency or distributed generation on this chart, I  
17 don't know.

18 Q You also discussed in your testimony the  
19 reduction in the cost of debt. That appears on page 13.

03:25 20 This is Q and A 16. You're discussing Mr. Cole's  
21 testimony and at line 8 you talk about the initiative  
22 that resulted in a significant projected reduction in  
23 the electric division's cost of debt from 5.77 percent  
24 in 2013 to a projected 4.12 percent. Do you see this,

03:25 25 this change alone will save customers an estimated 13.7

1 that calculation, a capacity value, a marginal energy  
2 value and results from an RFP in a competitive bid  
3 process for renewable energy; is that right?

04:59 4 A Those are the three items that go into the  
5 formation of the long-term avoided cost, which is  
6 separate and apart from the calculation.

7 Q And the calculation being for the excess energy  
8 rate?

04:59 9 A The calculation uses the long-term avoided cost  
10 as the foundation for the development of the excess  
11 energy rate.

12 Q Let's talk about the long-term avoided cost  
13 piece first. Do you know how the marginal energy price  
14 portion of the long-term avoided cost is derived?

05:00 15 A Production cost modeling.

16 Q And that's the Pro Mod modeling?

17 A Yes.

05:00 18 Q And those are the results -- those are the  
19 hourly marginal energy costs which is an output of that  
20 model; is that correct?

21 A Pro Mod is a unit dispatch and unit commitment  
22 model which uses a number of assumptions to simulate the  
23 dispatch and commitment of units to meet load, including  
24 the option to purchase from energy, and one of the  
05:00 25 outputs of any production cost modeling run is the

<sup>Δ market</sup>

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Shawn M EliceGUI  
SHAWN ELICEGUI

STATE OF NEVADA  
COUNTY OF WASHOE

Subscribed and sworn to before me  
this 22nd day of September, 2016.

Janice Baldarelli  
Notary

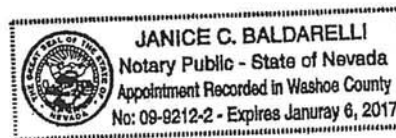


Exhibit RG-4:  
Discovery  
Responses  
Referenced in  
Testimony

# NV Energy

## RESPONSE TO INFORMATION REQUEST

<b>DOCKET NO:</b>	16-06006	<b>REQUEST DATE:</b>	08-23-2016
<b>REQUEST NO:</b>	VS 1-28	<b>KEYWORD:</b>	Excess Energy Credits
<b>REQUESTER:</b>	Mixon	<b>RESPONDER:</b>	Pollard, Tim

### REQUEST:

Question: Reference Pollard-DIRECT p. 42, Ins. 8-12, please state whether SPPC's proposed excess energy credits for NEM TOU customers are based on the long-term avoided costs for each hour. If yes, please explain how.

**RESPONSE CONFIDENTIAL (yes or no): No**

**TOTAL NUMBER OF ATTACHMENTS: None**

### RESPONSE:

The referenced testimony states: "The excess energy credit for the optional NEM TOU schedules uses the flat credit amount and the relationships of the long-term avoided costs by TOU period relative to the annual average are used to shape the TOU based excess energy credits in order to maintain an excess energy credit equal to the standard flat-rate NEM schedules. The TOU credit is limited to not exceed the total retail rate in any period."

Yes, the TOU excess energy credit for NEM TOU customers is based on hourly long-term avoided costs. Credits by TOU period use the relative ratio of the average LTAC values across all hours in the respective TOU period to the annual average LTAC that is used in the development of the flat NEM credit. This ratio is then applied to the flat-rate NEM credit to develop the credit by TOU period. The credit is limited to not exceed the total retail rate in any period.

# NV Energy

## RESPONSE TO INFORMATION REQUEST

**DOCKET NO:** 16-06006      **REQUEST DATE:** 08-29-2016  
**REQUEST NO:** VS 2-06      **KEYWORD:** Net Metering Applications  
**REQUESTER:**      **RESPONDER:** Webster, Kelly

### REQUEST:

**Question:** Please provide the number of net metering applications SPPC has received from residential and small commercial customers in each of the past ten (10) years (2005 through 2015, inclusive), broken out by year.

**RESPONSE CONFIDENTIAL (yes or no):** No

**TOTAL NUMBER OF ATTACHMENTS:** None

### RESPONSE:

Please see chart.

Total Residential and Small Commercial Applications Submitted					
Year	Non-Incentivized		Incentivized		Total
	Residential	Small Commercial	Residential	Small Commercial	
2005	2	0	45	2	49
2006	30	1	32	2	65
2007	1	1	35	-	37
2008	10	0	35	4	49
2009	85	0	104	8	197
2010	71	2	207	8	288

201 1	120	3	34	2	159
201 2	104	5	2	-	111
201 3	45	4	80	9	138
201 4	48	3	35	1	87
201 5	157	0	804	22	983

# NV Energy

## RESPONSE TO INFORMATION REQUEST

<b>DOCKET NO:</b>	16-06006	<b>REQUEST DATE:</b>	08-23-2016
<b>REQUEST NO:</b>	VS 1-57	<b>KEYWORD:</b>	CWFS
<b>REQUESTER:</b>	Mixon	<b>RESPONDER:</b>	Carroll, Colleen

### REQUEST:

Question: Reference Schaar-DIRECT p. 9, Ins. 11-16. Please provide:

- a. The records, documentation, and analysis upon which “[i]t was determined” that “it takes about twice as much time to serve a NEM customer call compared to a call relating to the full-requirements class.”
- b. The number of calls received from NEM customers and the number received from non-NEM customers.
- c. The name and job title of each person who determined that “it takes about twice as much time to serve a NEM customer call compared to a call relating to the full requirements class,” and when such determination was made.
- d. The call logs for customer service calls in the most recent twelve (12) months for NEM customer calls.

**RESPONSE CONFIDENTIAL (yes or no): No**

**TOTAL NUMBER OF ATTACHMENTS: None**

### RESPONSE:

- a. We do not have a call duration available for Customer Billing NEM calls for the North. The referenced statement “it was determined that it takes about twice as much time to serve a NEM customer call compared to a call relating to the full requirements class” was based on NEM call duration obtained from the South Billing NEM information.
- b. The telephony system is currently not able to differentiate between a NEM and non-NEM customer call. There are plans for Customer Billing NEM calls (program questions and set-up questions only) to be answered by Call Center- NVE North by the end of 2016.



c. Gretchen Djukanovich, Director Customer Contact, determined that “it takes about twice as much time to serve a NEM customer call compared to a call relating to the full-requirements class”.

This determination was made during information gathering responding to the Customer Weighting Factor survey in April 2016.

d. Call logs do not differentiate between NEM and non-NEM calls.

# NV Energy

## RESPONSE TO INFORMATION REQUEST

<b>DOCKET NO:</b>	16-06006	<b>REQUEST DATE:</b>	09-20-2016
<b>REQUEST NO:</b>	VS 4-20	<b>KEYWORD:</b>	NEM Customer Billing
<b>REQUESTER:</b>		<b>RESPONDER:</b>	Wells, Janet

### REQUEST:

Question: For each month in 2016, please identify:

- a) The total excess electricity fed back onto the grid by NEM customers, broken out by NEM customer class.
- b) The number of kWhs credited to NEM customers as net excess energy, broken out by NEM customer class.
- c) Please explain how the Company calculated the difference, if any, between the responses to (a) and (b).
- d) The NEM customer bill impacts of crediting NEM customers for net excess energy through hourly settlement, rather than compensating NEM customers for total excess energy, broken out by NEM customer class. If it is not possible to produce this data for all NEM customers who are credited for net excess energy through hourly settlement, please provide this data for a random sampling of twenty-five (25) NEM customers, with all identifying information removed.

**RESPONSE CONFIDENTIAL (yes or no): No**

**TOTAL NUMBER OF ATTACHMENTS: None**

### RESPONSE:

a) through d) Class specific individual NEM customer analysis was completed in this case to prepare census class loads. This process began with identifying the population of customers in the rate class. The test period and certification period for class loads analyzed data from October 2014 through December 2015 using the NEM population as defined by September 2015. Therefore, no interval data after that time has been requested or analyzed for the class as a whole or a subset of customers.

Additionally,

- a) The excess kWh by NEM class for the months of 2016 included through the Certification period of the filing is attached.
- b) And c). The net excess energy is the kWhs received.
- d) See response to a through c, therefore there is no analysis to be performed.

<b>Net Energy Metering Received kWh by Rate Class 2016</b>					
<u>Rate Schedule</u>	<u>Jan-16 Received</u>	<u>Feb-16 Received</u>	<u>Mar-16 Received</u>	<u>Apr-16 Received</u>	<u>May-16 Received</u>
GS-1-NEM and OGS-1-NEM	27,438	140,786	264,898	458,909	469,107
D1-NEM and OD-1-NEM	54,327	352,081	731,189	1,050,213	1,151,696
<b>Total</b>	<b>81,765</b>	<b>492,868</b>	<b>996,087</b>	<b>1,509,122</b>	<b>1,620,803</b>